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**Removal Action Report  
Terminal 1 South  
Portland, Oregon**



**Prepared for  
Port of Portland  
Project/Task No. 24232/830**

**October 22, 2002  
15230-04**



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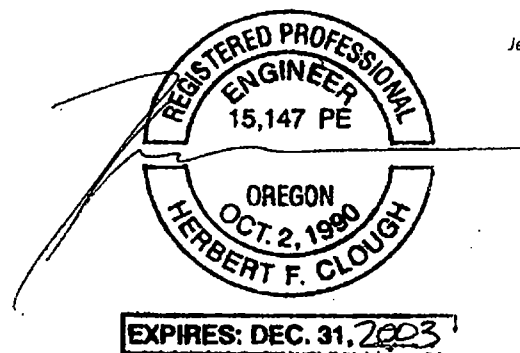
## Removal Action Report Terminal 1 South Portland, Oregon

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15230-04

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**REMOVAL ACTION REPORT  
PORT OF PORTLAND, TERMINAL 1 SOUTH  
PORTLAND, OREGON**

**EXECUTIVE SUMMARY**

From July to October 2002, a Removal Action (RA) was completed at the Port of Portland (Port) Terminal 1 South Site (T1S Site) in Portland, Oregon (Figure 1). This report serves as documentation of activities completed for closure of Parcel 2 (Area B) of the site. Closure activities were completed in general accordance with our Removal Action Work Plan for the T1S Parcel 2 (Area B) Site (with responses to Oregon Department of Environmental Quality [DEQ] comments) and the Technical Specifications and Drawings.

The objective of the RA was to reduce threats to human health from soil contaminated with polynuclear aromatic hydrocarbons (PAHs) and remove and dispose of soil with total petroleum hydrocarbons (TPH) to reduce risk to support future site use.

Previous environmental investigations conducted at the site identified T1S Site soils and groundwater concentrations exceeding screening levels. Likely or potential sources of contamination included underground storage tanks and dry wells. Petroleum hydrocarbons were identified as contaminants of interest. The human health risk assessment (HHRA) identified unacceptable risks to human receptors. The feasibility study determined that excavation of the soil exceeding established cleanup levels and the off-site disposal of the excavated soil were the best alternatives for the remedial action.

In the Removal Action Work Plan, cleanup levels established in the feasibility study were set as the initial removal action cleanup objectives. The feasibility study cleanup levels were based on conservative default exposure parameters. During construction activities, confirmation sampling was conducted, and sample analytical results were compared to the feasibility study cleanup levels for verification of attainment of the removal action objectives. However, confirmation results were not consistent with the data collected during the remedial investigation. Therefore, we re-evaluated the cleanup levels using more applicable, site specific exposure parameters. Based on this re-evaluation (in consultation with the DEQ), PAH cleanup levels under the urban residential exposure scenario were approved as the revised removal action objective.

An estimated 6,309 tons of soil were excavated and transported to the Coffin Butte Landfill (licensed Subtitle D solid waste disposal facility) in Corvallis,

Oregon. The excavated soil was subsequently used as daily cover at the landfill facility. After completing the removal, confirmation soil sampling was conducted in each excavation area (from excavation bottom and sidewalls) to verify cleanup levels had been attained and to document the contaminant concentrations in remaining soil.

Approximately 2,500 cubic yards of soil imported from a Port Rivergate borrow site were used to backfill Areas 1 through 6. The excavated areas were backfilled to within 3 feet of the existing ground surface (except in Areas 1 and 2 [backfilled to within 5 feet]) with excavation perimeters sloped to existing grade. Site security is provided by a chain-linked fence that runs parallel to Front Avenue. The fence prevents access to the T1S site.

Upon completion of remedial action activities, we estimated the magnitude of the residual risk remaining on site by removing the data corresponding to samples excavated during the cleanup, adding the confirmation sample results, and re-calculating the predicted residual risk for the receptors with unacceptable risk in the baseline risk assessment. The receptors that were evaluated in the residual risk assessment were future residents and commercial workers. The residual risk assessment for future residents and commercial workers resulted in calculated acceptable carcinogenic risks under all exposure scenarios.

Based on these results, the risk to human health and the environment for Parcel 2 (Area B) of T1S is acceptable. We recommend no further action at this portion of the site.

## **1.0 INTRODUCTION**

### **1.1 Purpose**

This report documents the Removal Action (RA) performed at the Terminal 1 South (T1S) Parcel 2 (Area B) Site in Portland, Oregon (Figure 1). The purpose of the RA was to reduce threats to human health from soil contaminated with polynuclear aromatic hydrocarbons (PAHs) and total petroleum hydrocarbons (TPH). This report was prepared for the Port of Portland (Port) under Project/Task No. 24232/830.

### **1.2 Scope**

The scope of work was completed in accordance with the Removal Action Work Plan for the T1S Parcel 2 (Area B) Site (Hart Crowser, 2002c), responses to Oregon Department of Environmental Quality (DEQ) comments on the Work

Plan (Hart Crowser, 2002d), and the Technical Specifications and Drawings (Port of Portland, 2002). Activities consisted of the following tasks:

- Installing temporary shoring to provide stability to the adjacent Front Avenue during excavation activities;
- Excavating contaminated soil exceeding the cleanup levels or contaminated soil targeted to reduce risk to support future site use;
- Disposing of the contaminated soil in a licensed Subtitle D solid waste disposal facility;
- Performing confirmation sampling to verify cleanup levels had been attained and to document contaminant concentrations remaining in soil;
- Importing sand material from the Port Rivergate borrow site;
- Backfilling the excavation areas with the sand material to provide stable and secure excavation slopes; and
- Preparing a report discussing the remedial action.

### **1.3 Report Organization**

This report presents a description and history of the site in Section 2 and summarizes previous work completed at the site in Section 3. The RA objectives and rationale are presented in Section 4, followed by discussions of the RA in Sections 5 and 6. Section 7 summarizes the residual risk assessment. Supporting information is provided in tables, figures, and appendices.

### **1.4 Limitations**

Hart Crowser performed this work in accordance with generally accepted professional practices related to the nature of the work accomplished, in the same or similar localities, at the time the services were performed. This report is for the specific application to the referenced project and for the exclusive use of the Port. No other warranty, express or implied, is made.

## **2.0 SITE DESCRIPTION AND BACKGROUND**

### **2.1 Site Location and Description**

**Site Location.** The subject property for this RA report is Parcel 2 (Area B) of the T1S Site. The T1S Site is located at 2100 NW Front Avenue along the Willamette River in Portland, Oregon (Figure 1). The site is located northwest of

Interstate 405 (Fremont Bridge), northeast of NW Front Avenue, southeast of Slip No. 2, and southwest of the Willamette River (Figure 1 and Drawing C-3). Parcel 2 (Area B) covers an area of approximately 8 acres. The T1S Site does not include sediments adjacent to the Site.

**Site Description.** Two structures, designated as Warehouse No. 2 and House No. 104, were present on the site at the time of Work Plan preparation. These structures were demolished (down to the floor) prior to the removal action. Currently, the site is unoccupied.

The topography at the T1S Site is generally level at an elevation of approximately 30 feet above mean sea level (msl). The site is generally paved with asphalt or concrete, with no vegetation or little bare ground present.

## **2.2 Site History**

Historically, Terminal 1 has been used for the staging of lumber, logs, paper products, steel containers, and bagged grain. Various companies have owned or leased portions of the T1S Complex (see RI Report; Hahn and Associates, 2001a).

## **2.3 Geology and Hydrogeology**

The subsurface soils encountered during previous investigations were predominantly sands and silts with occasional gravel to the maximum depth of investigation at 80 feet below the ground surface (bgs). Groundwater in the vicinity of the T1S Site generally occurs in three principal hydrogeologic zones: (1) a shallow unconfined fill/alluvial deposit (shallow water-bearing zone [WBZ]); (2) generally confined Troutdale WBZ; and (3) the confined Columbia River Basalt WBZ. Unconfined groundwater was encountered within the shallow WBZ (fill) at an average depth of approximately 23 feet bgs. Groundwater elevation measured in the seven monitoring wells installed at the T1S Site indicate a general flow to the northeast towards the Willamette River with a decline or even reversal of the gradient near the river (Hahn and Associates, 2001b).

## **3.0 SITE INVESTIGATIONS AND PREVIOUS WORK**

### **3.1 Remedial Investigation**

**Site Investigations.** Sampling events were conducted in 1998, 2000, and 2001. A total of 112 push probe borings were installed for the collection of soil and groundwater samples during these site investigations. Please refer to the RI Report (Hahn and Associates, 2001a) for further discussion of these activities and results.

A groundwater investigation was conducted at the T1S Site in August, September, and October 2001 (Hahn and Associates, 2001b). Site activities included installation, development, and sampling of seven groundwater monitoring wells at the site. Please refer to the groundwater sampling report for further discussion of these activities and results (Hahn and Associates, 2001b).

Environmental investigations conducted at the site identified T1S Site soils and groundwater concentrations exceeding screening levels. Likely or potential sources of contamination included underground storage tanks and dry wells. Petroleum hydrocarbons and metals were identified as contaminants of interest.

**Land Use.** The approximate 21-acre T1S Site has historically been zoned as "IH" for Heavy Industrial. Surrounding adjacent properties are zoned "IH" Heavy Industrial and "EX" Central Employment. The site is currently zoned as Central Residential (RX) such that it can be redeveloped for an alternative use. The RX zoning is considered the comprehensive plan for the property. Based on the RX zoning designation, it is expected the site will be used for mixed-use residential/commercial development in the future.

**Groundwater Use.** A beneficial groundwater use evaluation was conducted for the Hoyt Street Property (RETEC, 1997) that adjoins the southeast corner of the T1S Site. Hahn and Associates conducted an additional well inventory as part of the RI and the groundwater monitoring study to supplement the RETEC survey. Based on trends in groundwater use in the area, as well as RETEC fate and transport modeling, the only identified beneficial use for groundwater is discharge to the Willamette River. No water wells were found to be in use within 1/2 half mile of the T1S Site. No surface water rights were identified within 1/2 mile of the T1S Site.

### **3.2 Human Health and Ecological Risk Assessment**

**Human Health Risk Assessment.** Hart Crowser conducted a human health risk assessment (HHRA) for the T1S Site (Hart Crowser 2002a). Potentially exposed populations evaluated in the HHRA included future residents, current and future commercial workers, future utility/excavation workers, future construction workers, and recreational fishers. For the residential scenario, we conservatively used default residential exposure parameters rather than site-specific parameters. The site was divided into three Areas of Concern (AOCs), and separate risk calculations and risk estimates were conducted for each area. Areas A (Parcel 3), B (Parcel 2), and C (Parcel 1) are presented on Drawing C-3. To assess human health from ingestion of fish tissue, we screened groundwater data against

surface water criteria developed for this pathway. In summary, the risk assessment identified unacceptable risk to human receptors as follows:

#### **Area A**

- Future resident or commercial worker dermal contact or ingestion of soil with PAHs, lead, and arsenic;
- Excavation worker dermal contact or ingestion of soil with lead; and
- Construction worker dermal contact or ingestion of soil with lead.

#### **Area B**

- Future resident dermal contact or ingestion of soil with benzo(a)pyrene (arsenic is present in surface soil above residential acceptable risk levels, but below site background).

#### **Area C**

- No unacceptable risk (arsenic is present in surface soil above residential acceptable risk levels, but below site background).

**Ecological Risk Assessment Results.** The Level 1 Scoping Ecological Risk Assessment (ERA) did not identify any ecologically important species or habitats at the T1S Site. The site is almost entirely paved or covered by buildings. The absence of upland habitat indicates there are no complete exposure pathways for terrestrial ecological receptors to come in contact with contaminated soil at the T1S Site.

A Modified Level 2 Screening ERA was conducted on the available groundwater monitoring well data collected at this site (two monitoring events conducted September/October 2001 and January 2002). There were no detected concentrations of organic constituents in the seven groundwater monitoring wells that exceeded their corresponding Ecological Screening Benchmark Values (SBVs). There were two metals (copper and lead) detected in groundwater that exceeded SBVs based on the analysis of unfiltered, total metals, but when the same samples were analyzed for dissolved metals, copper and lead were not detected. The dissolved fraction of metals represents the bioavailable fraction in aqueous environmental media. Therefore, it is concluded there is no potential for adverse ecological impacts to aquatic ecological receptors from the discharge of groundwater to the Willamette River. No additional ecological risk assessment activities are warranted at this site.

### **3.3 Feasibility Study**

**Feasibility Study.** A feasibility study was completed for the T1S Site (Hart Crowser, 2002b), and it was determined that excavation of the soil exceeding established cleanup levels and the off-site treatment/disposal of the excavated soil was the best alternative for the remedial action. Remedial action levels were established based on the HHRA (corresponding to the residential RBC [ $1 \times 10^{-6}$  for individual carcinogens or hazard index of 1 for noncarcinogens]) and the statistical background concentration for arsenic (Hahn and Associates, 2001a). Hot spot levels were calculated based on 100 times (carcinogens) or 10 times (noncarcinogens) the established cleanup level.

Table 1 of the Work Plan (Hart Crowser, 2002c) lists the cleanup and hot spot levels. Figure 3 of the Work Plan (Hart Crowser, 2002c) identifies the areas exceeding the cleanup and hot spot levels.

### **3.4 Removal Action Work Plan**

In June 2002, a Removal Action Work Plan (Hart Crowser, 2002c) was submitted to the DEQ for review. DEQ comments to the Work Plan (primarily associated with the confirmation sampling program) were addressed in a response letter submitted to the DEQ on July 25, 2002 (Hart Crowser, 2002d). The response letter was approved on July 26, 2002.

In the Removal Action Work Plan, cleanup levels as established in the feasibility study were set as the initial removal action cleanup objectives. The feasibility study established cleanup levels were based on conservative default exposure parameters. Conservative default exposure parameters rather than site-specific parameters were used in selection of the cleanup levels due to the following:

- Based on site characterization results and the removal of soil to satisfy future site development plans, it was expected that at the conclusion of the removal action low levels of PAHs would remain.
- Use of the default exposure parameters would streamline the removal action process resulting in reduced costs and attaining project deadlines for closure of the site.

Based on these feasibility study cleanup levels, the DEQ completed a Record of Decision (ROD) for the selected RA at the site. The selected RA for the T1S site consisted of the removal of soil between 0 and 15 feet bgs above cleanup levels protective of future site residents, construction workers, and trench workers.



The selected RA also included a deed restriction to assure that future land use remained consistent with the selected remedy.

### **3.5 Modifications to the Work Plan**

During construction activities, confirmation sampling was conducted in general accordance with the Removal Action Work Plan (Hart Crowser, 2002c) and associated DEQ comments. Confirmation sampling analytical results were compared to the feasibility study established cleanup levels for verification of attainment of the removal action objectives. Due to the difficulty attaining PAH (predominantly benzo(a)pyrene) levels below the cleanup levels, a re-evaluation of more applicable, site specific cleanup levels was performed. Based on this re-evaluation, PAH cleanup levels under the urban residential exposure scenario were approved as the revised removal action objective.

Due to the modification of the PAH cleanup levels, the ROD was amended to address this modification. The revised ROD was completed in September 2002.

## **4.0 OBJECTIVES AND RATIONALE**

The objectives for the T1S Parcel 2 (Area B) Site were to:

- Remove soil exceeding cleanup levels (as described below); and
- Remove contaminated soil to reduce risk to support future site use.

**Removal Action Cleanup Objective.** The project cleanup levels for the Parcel 2 (Area B) portion of the RA are presented in Table 1. These cleanup levels were established based on the urban residential exposure scenario and a  $1 \times 10^{-6}$  excess cancer risk for individual carcinogens.

## **5.0 DESCRIPTION OF REMOVAL ACTIVITIES**

From July 29, 2002, to October 11, 2002, RA activities were performed at the T1S Parcel 2 (Area B) Site. The RA included site preparation activities, temporary shoring, excavating contaminated soil, confirmation soil sampling, backfilling, and compacting. Eudaly Bros., of Portland, Oregon, under direct contract to the Port, completed the RA activities. Hart Crowser, under contract to the Port, provided oversight during shoring implementation and collected confirmation samples. The Port provided construction inspection services and verification surveying. Soil disposal was at the Coffin Butte Landfill, a licensed Subtitle D solid waste landfill, in Corvallis, Oregon.

Appendix A presents representative photographs of T1S Parcel 2 (Area B) RA activities. A detailed description of Hart Crowser's field procedures is included in Appendix B.

## **5.1 Site Preparation Activities**

**Permits.** The Port submitted design drawings and specifications to the City of Portland's Office of Planning and Development Review for a grading permit and Greenway review. The submittal was approved and issued on September 27, 2002, under Case File Number: LU 02-126821 GW EF. Hart Crowser performed special inspections and geotechnical observations according to State and Building Code and City of Portland Administrative Rules for shoring, grading, fill placement, and compaction. Copies of applicable project permits are included in Appendix C.

**Site Health and Safety Plan.** Eudaly Bros. and Hart Crowser prepared site-specific Health and Safety Plans (HASP) for the RA activities. The HASP was prepared in general accordance with the Occupational Safety and Health Act (OSHA) and the Oregon Administrative Rules (OAR). Hart Crowser's copy of the HASP is included in the Work Plan, dated June 13, 2002.

**Utility Locate.** The contractor contacted the Oregon Utility Notification Center, who in turn notified various utilities in the area to mark any underground installations in the vicinity of the site. An underground utility locate was conducted by Port personnel prior to performing any excavation activities.

**Removal of Railroad Tracks.** Railroad tracks and ties in excavation Areas 1, 2, and 3 were removed to facilitate the excavations. The railroad tracks were removed to the extent necessary to facilitate the removal of soil. The railroad tracks were temporarily stored on site in a location designated by the Port. The ties were later removed from the site for recycling.

**Waste Profiling.** Previous site investigation analytical data were submitted to Coffin Butte Landfill for acceptance as a non-hazardous waste. The concentration of total lead at sample location B-5 (at 2 feet bgs) was sufficient to warrant further testing for leachable lead (i.e., Toxic Characteristic Leaching Procedures [TCLP] test for lead). A sample (B-52A) was collected from the B-5 exploration location and submitted for TCLP analysis (RCRA 8 metals). Analytical results for the TCLP analysis showed a low level detection of barium (below hazardous waste criteria). Lead was not detected. Therefore, soil generated from the site was considered a non-hazardous solid waste. Table 2

summarizes the results of the waste designation TCLP results. A copy of the soil profile is included in Appendix D.

## **5.2 Shoring**

Temporary shoring and bracing were constructed to provide stability to Front Avenue during excavation procedures completed at Area 3. The shoring was installed using a low-overhead crane and in accordance with design drawings. Structural and shoring details are presented on Drawings S-1 and S-2 and in Photographs 1 and 2.

## **5.3 Demolition**

As part of future site development, two structures, designated as Warehouse No. 2 and House No. 104, were demolished (down to the floor) prior to the removal action (by others). Additional demolition activities were completed to facilitate additional excavation required to attain the removal action cleanup objectives (see Section 5.4.3).

## **5.4 Soil Excavation and Disposal**

The following presents a discussion of the excavation and disposal activities.

### **5.4.1 Excavation Methodology**

The contractor's surveyor located the extent of each excavation area prior to construction activities. A majority of the excavation areas were paved with asphalt or concrete with no vegetation or little bare ground present. The asphalt and concrete surfacing the site were removed prior to soil excavation. Asphalt and concrete were recycled or disposed of at a permitted facility.

Excavations were performed using a trackhoe. Loading of trucks occurred immediately adjacent to the side of the excavation using the trackhoe. Care was exercised to minimize soil spillage onto the sides of the trucks. Any soil spilled on the truck sides was brushed off and returned to the removal area. The trucks were tarped prior to leaving the site. Excavation depths were surveyed by Port surveyors to verify design depths were achieved.

The final extent of excavation areas 1 through 6 are shown on Drawings C-7 and C-8. Summary tables presented on Drawings C-7 and C-8 show the areas/depths/volumes of each respective area that exceed the cleanup level. Excavation details are shown on Drawing C-9.

#### **5.4.2 Overburden Excavation/Stockpiling**

Overburden (0 to 5 feet bgs) from Area 3 was excavated and temporarily stockpiled on site in a location designated by the Port for confirmation sampling. The clean overburden stockpile was managed to prevent erosion and sediment runoff. Based on the confirmation sampling results, the stockpiled soil from Area 3 was deemed unsuitable for use as on-site fill. Therefore, the stockpiled soil was loaded and transported to Coffin Butte Landfill in Corvallis, Oregon, for disposal. Stockpile sample results are presented in section 6.2.2.

#### **5.4.3 Contaminated Soil Excavation**

**Area 1.** Based on confirmation sampling results (see Section 6.2.1), excavation and removal of contaminated soil from Area 1 was completed beyond the extent shown on the design drawings. Additional excavation and removal of contaminated soil was completed at the east perimeter, northeastern perimeter, and under Warehouse 104. Six test pit explorations (Photograph 3) were completed adjacent to Area 1 to aid in determining the extent of excavation under Warehouse 104. Prior to excavation at the Warehouse area, the concrete surface and footings were removed to the extent feasible to allow soil removal. Additional excavation and removal was performed over an area of approximately 2,600 square feet to the elevation of the bottom of Area 1 excavation. The extent of additional excavation performed in Area 1 is shown shaded on Drawing C-7 and in Photographs 4 and 5.

**Area 2, 4, 5, and 6.** Excavation and removal of contaminated soil from Areas 2, 4, 5, and 6 was completed to the extent and elevations shown on the design drawings. Photograph 6 shows the excavations of Areas 4 and 5. Excavation area 6 is shown in Photograph 7. Please see section 6.2.1 for confirmation sampling results for Areas 2, 4, 5, and 6.

**Area 3.** Based on confirmation sampling results (see Section 6.2.1), excavation and removal of contaminated soil from Area 3 was completed beyond the extent shown on the design drawings. Additional excavation and removal of contaminated soil was completed at the eastern and southeastern portion of Area 3. Additional excavation and removal was performed over an area of approximately 1,775 square feet to depth of 3 feet bgs. The extent of additional excavation performed in Area 3 is shown shaded on Drawing C-7 and in Photograph 8.

#### **5.4.4 Soil Drums**

A total of 25 soil drums (investigation derived wastes from previous site investigations) were emptied into Area 2 and subsequently loaded and transported for disposal. The 25 soil drums equate to a volume of approximately 7 cubic yards.

#### **5.4.5 Soil Disposal**

A total of 6,309 tons of contaminated soil (area excavations, area over-excavations, stockpile, and soil drums) were transported to the Coffin Butte Landfill in Corvallis, Oregon, for disposal. Based on personal communication with Coffin Butte Landfill personnel, the contaminated soil was used as daily cover (i.e., beneficial use). Appendix D includes copies of the disposal tickets, a summary table of the loads, and a certificate of disposal form from the landfill. Summaries of removal volumes by area are provided in the tables on Drawings C-7 and C-8.

### **5.5 Backfilling and Compacting**

**Geotextile.** Prior to backfilling, a nonwoven geotextile fabric was placed on the bottom and sidewalls of each excavation area. The geotextile served as a demarcation layer between the existing soil and the backfill material (Photograph 9). The edges of the fabric were overlapped a minimum of one foot to provide continuity.

**Backfill.** Approximately 2,500 cubic yards of sand from the Port of Portland Rivergate borrow site were imported to the site to be used as backfill for Areas 1 through 6. Backfilling performed adjacent to shoring was completed by constructing a 5-foot-wide bench to previously existing grade. The accompanying side slope tapering away from the bench was sloped at 2H:1V. Areas 2 and 3 were backfilled to 5 feet bgs with the excavation perimeters sloped at 2H:1V to existing grade. Backfilling in Areas 4, 5, and 6 were completed to within 3 feet bgs with excavation perimeters sloped at 2H:1V to existing grade. Typical backfilling schematics in the vicinity of shoring and excavation perimeters are shown on Drawing C-9.

**Compaction.** Backfill was spread in 12- to 18-inch-thick lifts and compacted to 92 percent of the maximum density (ASTM D1557). The backfill material was compacted with a smooth drummed-vibratory compactor in accordance with the technical specifications. All material was moistened, as necessary, to provide the moisture content that readily facilitated obtaining the specified

compaction. Grading, watering, and compacting the backfill material is shown in Photograph 10.

Copies of the moisture-density and compaction results are provided in Appendix C.

**Final Site Cleanup and Security.** The contractor removed all debris and garbage generated by this work from the site. After completion of all other work, the contractor removed any temporary facilities (except fencing needed to protect excavations). Site security is provided by a chain-linked fence that runs parallel to Front Avenue. The fence prevents access to the T1S site.

## **6.0 CONFIRMATION SOIL SAMPLING**

Hart Crowser collected confirmation soil samples in accordance with the RA Work Plan (Hart Crowser, 2002c). A detailed description of field procedures is included in Appendix B.

### **6.1 Analyses Requested**

Soil samples were submitted to North Creek Analytical (NCA) of Beaverton, Oregon, for chemical analyses. Except for excavation floor samples, all samples were analyzed on a rapid turnaround basis (i.e., 48 hours). All samples were collected in laboratory-supplied sample containers, marked with identifying information, and maintained under chain of custody protocols. The overall analytical testing program included the following analyses on selected samples:

- Diesel and heavy oil range hydrocarbons using NWTPH-Dx (all samples);
- PAHs using EPA Method 8270-SIM (selected samples); and
- Toxicity Characteristic Leaching Procedure (TCLP) metals (RCRA 8) using EPA Method 1311/6010A series methods (waste designation sample B-52A).

Appendix E contains a quality assurance/quality control (QA/QC) review and complete laboratory analytical reports. Analytical laboratory results are summarized in Tables 2 through 11.

### **6.2 Analytical Results**

Confirmation soil samples were collected from the excavation floor and sidewalls (0 to 3 feet and 3 to 10 feet bgs). Drawings C-7 (Area 1, 2, and 3) and C-8 (Area 4, 5, and 6) show the sample locations. Sample locations were measured relative to site features. Analytical results for TPH-Dx from soil

samples collected from Areas 1 through 6 are summarized in Table 3. Analytical results for PAHs from soil samples collected from Areas 1 through 6 are summarized in Tables 4 through 9. Analytical results for TPH-Dx and PAHs for soil samples collected from stockpiles are summarized in Table 10 and 11, respectively.

### **6.2.1 Confirmation Sampling Results Areas 1 - 6**

**Area 1.** Five samples (three sidewall/two bottom) were collected from Area 1 upon completion of excavation to the extent and elevations shown on the design drawings. PAHs in two sidewall samples (1W [Warehouse area] and 1E [eastern and northeastern perimeter]) exceeded the Feasibility Study (FS) established cleanup levels.

Upon completion of additional excavation activities in the eastern and northeastern perimeter (as described in Section 5.4.3, Drawings C-7), collected re-confirmation samples (1N2 and 1E2) did not exceed the FS established or urban residential cleanup levels for PAHs.

Confirmation samples (1W3, 1W4, and 1W5) collected upon completion of additional excavation activities under Warehouse 104 exceeded FS established cleanup levels. However, these confirmation samples did not exceed the urban residential cleanup levels. Therefore, no additional excavation was completed in Area 1.

The highest total TPH-Dx concentration (586 mg/kg) was detected in sample 1W2 Grey.

TPH-Dx and PAH analytical results for confirmation samples collected from Area 1 are presented in Tables 3 and 4, respectively.

**Area 2.** Ten confirmation samples (nine sidewall/one bottom) were collected from Area 2. TPH-Dx as diesel and/or oil was detected in four samples ranging in total TPH-Dx concentration from 70 to 255 mg/kg. Three of the four samples analyzed for PAHs reported detected concentrations. Detected concentrations of TPH-Dx and PAHs did not exceed the FS established or urban residential cleanup levels. No additional excavation was warranted in Area 2.

TPH-Dx and PAH analytical results for confirmation samples collected from Area 2 are presented in Tables 3 and 5, respectively.

**Area 3.** Eight samples were collected from Area 3 upon completion of excavation to the extent and elevations shown on the design drawings. PAHs

were detected above the FS established cleanup levels in three samples collected from the eastern (T1-3E [0-3]) and southeastern (T1-3SE [0-3] and T1-3SE2[0-3]) portions of Area 3.

Upon completion of additional excavation activities (as described in Section 5.4.3, Drawings C-7), confirmation samples (T1-3E[0-3], T1-3SE 3[0-3], and T1-3SE 4[0-3]) exceeded the FS established cleanup levels for PAHs. One confirmation sample (T1-3SE 4[0-3]) was approximately equal to the urban residential cleanup level for one PAH (concentration of 0.311mg/kg benzo(a)pyrene). No additional excavation was completed. See Section 7.0 for discussion of the residual risk for Parcel 2.

TPH-Dx was detected in two samples (T1-3SE [0-3], and T1-3W[3-10]) with a maximum total TPH-Dx concentration of 432 mg/kg.

TPH-Dx and PAH analytical results for confirmation samples collected from Area 3 are presented in Tables 3 and 6, respectively.

**Area 4.** Four confirmation samples (three sidewall/one bottom) were collected from Area 4. TPH-Dx and PAHs were not detected in collected soil samples. No additional excavation was warranted in Area 4.

TPH-Dx and PAH analytical results for confirmation samples collected from Area 4 are presented in Tables 3 and 7, respectively.

**Areas 5.** Two confirmation samples (one sidewall/one bottom) were collected from Area 5. TPH-Dx and PAHs were not detected in collected soil samples. No additional excavation was warranted in Area 5.

TPH-Dx and PAH analytical results for confirmation samples collected from Area 5 are presented in Tables 3 and 8, respectively.

**Areas 6.** Five confirmation soil samples (four sidewall/one bottom) were collected from Area 6. A total TPH-Dx concentration of 114 mg/kg was detected in sample 6B. PAHs were also detected in sample 6B. TPH-Dx and PAH concentrations for sample 6B did not exceed FS established or urban residential cleanup levels. No additional excavation was warranted in Area 6.

TPH-Dx and PAH analytical results for confirmation samples collected from Area 6 are presented in Tables 3 and 9, respectively.



### 6.2.2 Stockpile Sampling Results

As described in section 5.3.2, 5 feet of overburden was excavated and stockpiled from Area 3. One composite sample was collected from each 200 cubic yards (or portion thereof) of soil within the stockpile. A total of six composite soil samples were collected for chemical analysis for waste designation purposes.

TPH-Dx as heavy oil was detected in five of six stockpile samples ranging in concentration from 136 to 780 mg/kg. Total TPH-Dx for stockpile sample SP-A3 exceeded the cleanup level of 700 mg/kg. All six composite samples detected PAHs above FS established cleanup levels. Five of the six composite samples detected PAHs above the urban residential cleanup levels. Based on the sample results, soil stockpiled from Area 3 was loaded and transported to Coffin Butte Landfill in Corvallis, Oregon, for disposal.

## 7.0 RESIDUAL RISK ASSESSMENT

**Residual Risk Assessment.** A residual human health risk assessment was conducted to evaluate the risks remaining in Parcel 2 (Area B) after the completion of the excavation activities. This residual risk assessment was conducted in accordance with the requirements of OAR 340-122-084(4). The baseline human health risk assessment identified unacceptable risks in Parcel 2 (Area B) under the residential and commercial worker scenario. There were no predicted unacceptable human health risks identified for construction workers or for utility/excavation workers. There were no predicted unacceptable risks to surface water receptors (ecological or human) or terrestrial ecological receptors.

Upon completion of Parcel 2 (Area B) remedial action activities, the total site risk was reduced with the removal of soil contaminated above established cleanup levels and the regional background level for arsenic. For Parcel 2 (Area B), we estimated the magnitude of the residual risk remaining on site after remediation by removing the data corresponding to samples excavated during the cleanup, adding the confirmation sample results, and re-calculating the predicted residual risk for the receptors with unacceptable risk in the baseline risk assessment. The receptors that were evaluated in this residual risk assessment were future residents and commercial workers.

The residual risk assessment utilized an "urban residential" exposure scenario to calculate potential risks from direct contact and inhalation of fugitive dust to surface soil (0 to 3 feet bgs) and inhalation of volatile organic compounds

(VOCs) from groundwater. The exposure parameters and assumptions of the "urban residential" scenario were discussed and approved by DEQ and are presented in Appendix F of this report. The exposure assumptions and parameters for the commercial worker were the same as used in the baseline HHRA and are also included in Appendix F.

Appendix F to this report presents the 0 to 3 feet bgs soil data set used for residual risk calculations, the exposure parameters and assumptions used for calculating the potential residential and commercial worker residual risks, tables that present the selection of EPCs for the COPCs identified in the original human health risk assessment, and final risk summary tables for this residual human health risk assessment.

The residual risk assessment for future residents and commercial workers resulted in calculated acceptable carcinogenic risks under all exposure scenarios. The total RME residual cancer risk for the urban residential scenario was calculated to be  $7 \times 10^{-7}$  with no individual COPCs exceeding the individual carcinogen target risk level of  $1 \times 10^{-6}$ . The total RME residual cancer risk for the commercial worker was calculated to be  $7 \times 10^{-7}$  with no individual COPCs exceeding the individual carcinogen target risk level of  $1 \times 10^{-6}$ .

The hazard indices for all future exposure scenarios also resulted in acceptable risks. The total RME hazard indices for residual non-cancer risks for the urban residential scenario was calculated to be  $2 \times 10^2$  and the RME hazard indices for residual non-cancer risk for the commercial worker was calculated to be  $2 \times 10^3$ .

Risk Based Concentrations (RBCs) for the human health COPCs were calculated for the "urban residential" exposure scenario and the "commercial worker" scenario and are presented in Appendix F.

## 8.0 REFERENCES

Hahn and Associates, 2001a. Terminal 1 South Remedial Investigation Report. July 12, 2001 (Volumes 1 and 2).

Hahn and Associates, 2001b. Monitoring Well Installation and Groundwater Sampling Report. December 19, 2001.

Hart Crowser, 2002a. Human Health and Ecological Baseline Risk Assessment, Terminal 1 South. Portland, Oregon, January 18, 2002 (DRAFT).

Hart Crowser, 2002b. Feasibility Study, Terminal 1 South. Portland, Oregon, February 1, 2002.

Hart Crowser, 2002c. Removal Action Work Plan, Terminal 1 South. Portland, Oregon, June 13, 2002.

Hart Crowser, 2002d. Response to Approval Comments on the Removal Action Work Plan, Terminal 1 South, Portland, Oregon, July 25, 2002.

Port of Portland, 2002. Remedial Action Parcel 3 (Area A) Technical Specifications and Drawings, Terminal 1 South. Portland, Oregon, July 2002.

**Table 1 - Soil Cleanup Levels**  
**Terminal 1 South Removal Action Report**  
**Portland, Oregon**

| COPC  | Cleanup Levels in mg/kg |                  |
|---|-------------------------|------------------|
|   | Residential             | Construction-EPA |
| <b>Applicable Depth Interval (feet from ground surface)</b> | 0 - 3                   | 0 - 10           |
| <b>Total TPH-Dx</b>   | 700                     | 700              |
| <b>PAHs</b>   |                         |                  |
| Benzo(a)anthracene  | 2.9                     | 21               |
| Benzo(a)pyrene  | 0.29                    | 2.1              |
| Benzo(b)fluoranthene  | 2.9                     | 21               |
| Dibenz(a,h)anthracene                                       | 0.29                    | 2.1              |
| Indeno(1,2,3-cd)pyrene                                      | 2.9                     | 21               |

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**Notes:**

1. TPH-Dx = Total Petroleum Hydrocarbons as Diesel.
2. Cleanup Level for TPH-Dx is the Urban Resident Child Concentration developed by Hoyt Street Yards (see Hart Crowser 2002b).
3. Cleanup level for PAHs based on urban resident exposure scenario and a  $1 \times 10^{-6}$  excess cancer risk for individual carcinogens.

**Table 2 - Analytical Results: Waste Designation (TCLP Metals)  
Terminal 1 South Removal Action Report  
Portland, Oregon**

|                            |          |                           |
|----------------------------|----------|---------------------------|
| Sample-ID                  | B-52A    | Hazardous Waste<br>(TCLP) |
| Sample Date                | 1-Aug-02 |                           |
| Sample Depth               | 2 feet   |                           |
| Sample Area                | Area 4   |                           |
| <b>TCLP Metals in mg/L</b> |          |                           |
| Arsenic                    | <0.05    | 5                         |
| Barium                     | 0.422    | 100                       |
| Cadmium                    | <0.05    | 1                         |
| Chromium                   | <0.05    | 5                         |
| Lead                       | <0.05    | 5                         |
| Mercury                    | <0.001   | 0.2                       |
| Selenium                   | <0.05    | 1                         |
| Silver                     | <0.05    | 5                         |

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**Notes:**

1. TCLP = Toxicity Characteristic Leaching Procedure.
2. mg/L = milligrams per Liter (ppm).

**Table 3 - Analytical Results: Confirmation Soil Samples for Areas 1 - 6 (TPH-Dx)**  
**Terminal 1 South Removal Action Report**  
**Portland, Oregon**

| Sample ID      | Sample Date                  | Sample Depth | NWTPH-Dx |      | Total TPH-Dx Concentration |
|----------------|------------------------------|--------------|----------|------|----------------------------|
|                |                              |              | Diesel   | Oil  |                            |
| Area 1         | Concentration in mg/kg (ppm) |              |          |      |                            |
| 1N             | 12-Aug-02                    | 0 - 3 feet   | <25      | 143  | 143                        |
| 1 N2           | 22-Aug-02                    | 0 - 3 feet   | <25      | <50  | <50                        |
| 1W             | 12-Aug-02                    | 0 - 3 feet   | <25      | 50.7 | 50.7                       |
| 1W2 Brown      | 22-Aug-02                    | 5- 6 feet    | <25      | <50  | <50                        |
| 1W2 Grey       | 22-Aug-02                    | 5 -6 feet    | 138      | 448  | 586                        |
| 1W3            | 20-Sep-02                    | 5 -6 feet    | 30.5     | 64.4 | 94.9                       |
| 1W4            | 20-Sep-02                    | 5 -6 feet    | <25      | <50  | <50                        |
| 1W5            | 23-Sep-02                    | 5 -6 feet    | 25.3     | 75.8 | 101.1                      |
| TP2            | 29-Aug-02                    | 5- 6 feet    | <10      | <25  | <25                        |
| TP4            | 29-Aug-02                    | 5 -6 feet    | 15.2     | 27.3 | 42.5                       |
| 1E             | 12-Aug-02                    | 0 - 3 feet   | <25      | 71.2 | 71.2                       |
| 1 E2           | 22-Aug-02                    | 0 - 3 feet   | <25      | <50  | <50                        |
| 1B North       | 12-Aug-02                    | Bottom       | <25      | 122  | 122                        |
| 1B South       | 12-Aug-02                    | Bottom       | <25      | 108  | 108                        |
| 1B South (Dup) | 12-Aug-02                    | Bottom       | <25      | 63.8 | 63.8                       |
| Area 2         |                              |              |          |      |                            |
| T1-2N(3-10)    | 16-Aug-02                    | 3 - 10 feet  | <25      | <50  | <50                        |
| T1-2B          | 16-Aug-02                    | Bottom       | <25      | <50  | <50                        |
| T1-2NW(0-3)    | 16-Aug-02                    | 0 - 3 feet   | <25      | <50  | <50                        |
| T1-2NW(3-10)   | 16-Aug-02                    | 3 - 10 feet  | 66.4     | 189  | 255.4                      |
| T1-2W(0-3)     | 16-Aug-02                    | 0 - 3 feet   | <25      | 53   | 53                         |
| T1-2W(3-10)    | 16-Aug-02                    | 3 - 10 feet  | <25      | <50  | <50                        |
| T1-2FW(0-3)    | 16-Aug-02                    | 0 - 3 feet   | <25      | <50  | <50                        |
| T1-2FW(3-10)   | 16-Aug-02                    | 3 - 10 feet  | <25      | <50  | <50                        |
| T1-2S(0-3)     | 16-Aug-02                    | 0 - 3 feet   | 44       | 204  | 248                        |
| T1-2S(3-10)    | 16-Aug-02                    | 3 - 10 feet  | <25      | 70.4 | 70.4                       |
| Area 3         |                              |              |          |      |                            |
| T1-3E(0-3)     | 21-Aug-02                    | 0 - 3 feet   | <25      | <50  | <50                        |
| T1-3E2(0-3)    | 20-Sep-02                    | 0 - 3 feet   | <25      | <50  | <50                        |
| T1-3E(3-10)    | 21-Aug-02                    | 3 - 10 feet  | <25      | <50  | <50                        |
| T1-3BN         | 21-Aug-02                    | Bottom       | <25      | <50  | <50                        |
| T1-3BS         | 21-Aug-02                    | Bottom       | <25      | <50  | <50                        |
| T1-3SE(0-3)    | 21-Aug-02                    | 0 - 3 feet   | <25      | <50  | <50                        |
| T1-3SE(3-10)   | 21-Aug-02                    | 3 - 10 feet  | <25      | <50  | <50                        |
| T1-3SE2(0-3)   | 27-Aug-02                    | 0 - 3 feet   | 31.8     | 148  | 179.8                      |
| T1-3SE3(0-3)   | 20-Sep-02                    | 0 - 3 feet   | <25      | <50  | <50                        |
| T1-3SE4(0-3)   | 20-Sep-02                    | 0 - 3 feet   | <25      | <50  | <50                        |
| T1-3W(0-3)     | 21-Aug-02                    | 0 - 3 feet   | <25      | <50  | <50                        |
| T1-3W(3-10)    | 21-Aug-02                    | 3 - 10 feet  | 83.1     | 349  | 432.1                      |
| Area 4         |                              |              |          |      |                            |
| 4E             | 09-Aug-02                    | 0 - 3 feet   | <25      | <50  | <50                        |
| 4N             | 09-Aug-02                    | 0 - 3 feet   | <25      | <50  | <50                        |
| 4S             | 09-Aug-02                    | 0 - 3 feet   | <25      | <50  | <50                        |
| 4B             | 09-Aug-02                    | Bottom       | <25      | <50  | <50                        |
| 4B (Dup)       | 09-Aug-02                    | Bottom       | <25      | <50  | <50                        |
| Area 5         |                              |              |          |      |                            |
| 5W             | 09-Aug-02                    | 0 - 3 feet   | <25      | <50  | <50                        |
| 5B             | 09-Aug-02                    | Bottom       | <25      | <50  | <50                        |
| Area 6         |                              |              |          |      |                            |
| 6E             | 22-Aug-02                    | 0 - 3 feet   | <25      | <50  | <50                        |
| 6N             | 22-Aug-02                    | 0 - 3 feet   | <25      | <50  | <50                        |
| 6N Dup         | 22-Aug-02                    | 0 - 3 feet   | <25      | <50  | <50                        |
| 6S             | 22-Aug-02                    | 0 - 3 feet   | <25      | <50  | <50                        |
| 6W             | 22-Aug-02                    | 0 - 3 feet   | <25      | <50  | <50                        |
| 6B             | 22-Aug-02                    | Bottom       | 25.8     | 88.4 | 114.2                      |

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**Notes:**

1. mg/kg = milligrams per kilogram (ppm).
2. NWTPH-Dx = Northwest Total Petroleum Hydrocarbon Diesel Extended.
3. Dup = Duplicate Sample.

Table 4 - Analytical Results: Confirmation Soil Samples for Area 1 (PAHs)  
Terminal 1 South Removal Action Report  
Portland, Oregon

| Sample Number          | 1W1                          | 1W2 Brown  | 1W2 Grey   | 1W3        | 1W4        | 1W5        | TP2        | TP4        | 1E         | 1E2        | 1B South  | 1B South (Dup) | 1N2        | Human Health Cleanup Levels |             |
|------------------------|------------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-----------|----------------|------------|-----------------------------|-------------|
| Sample Date            | 12-Aug-02                    | 22-Aug-02  | 22-Aug-02  | 20-Sep-02  | 20-Sep-02  | 23-Sep-02  | 22-Aug-02  | 22-Aug-02  | 22-Aug-02  | 22-Aug-02  | 12-Aug-02 | 12-Aug-02      | 22-Aug-02  |                             |             |
| Sample Area            | Area 1                       | Area 1     | Area 1     | Area 1     | Area 1     | Area 1     | Area 1     | Area 1     | Area 1     | Area 1     | Area 1    | Area 1         | Area 1     |                             |             |
| Sample Depth           | 0 - 3 feet                   | 0 - 3 feet | 0 - 3 feet | 0 - 3 feet | 0 - 3 feet | 0 - 3 feet | 0 - 3 feet | 0 - 3 feet | 0 - 3 feet | 0 - 3 feet | 3 feet    | 3 feet         | 0 - 3 feet | 0 - 3 feet                  | 0 - 10 feet |
| PAHs (EPA 8270 SIM)    | Concentration in mg/kg (ppm) |            |            |            |            |            |            |            |            |            |           |                |            |                             |             |
| Acenaphthene           | <0.0268                      | <0.01      | <0.01      | <0.01      | <0.01      | <0.01      | <0.01      | <0.01      | <0.0268    | <0.01      | <0.067    | <0.067         | <0.01      | --                          | --          |
| Acenaphthylene         | <0.0268                      | <0.01      | 0.0171     | <0.01      | <0.01      | <0.01      | <0.01      | 0.0112     | 0.0452     | <0.01      | <0.067    | <0.067         | <0.01      | --                          | --          |
| Anthracene             | 0.0484                       | <0.01      | 0.0209     | 0.0206     | <0.01      | <0.01      | <0.01      | <0.01      | 0.115      | <0.01      | <0.067    | <0.067         | <0.01      | --                          | --          |
| Benzo(a)anthracene     | 0.262                        | 0.0252     | 0.142      | 0.0901     | 0.0177     | 0.0338     | <0.01      | 0.0358     | 0.435      | <0.01      | 0.08      | 0.083          | <0.01      | 2.9                         | 21          |
| Benzo(a)pyrene         | 0.256                        | 0.04       | 0.141      | 0.102      | 0.0213     | 0.037      | <0.01      | 0.0426     | 0.514      | <0.01      | 0.0743    | 0.159          | <0.01      | 0.29                        | 2.1         |
| Benzo(b)fluoranthene   | 0.184                        | 0.02       | 0.0798     | 0.0696     | 0.0135     | 0.022      | <0.01      | 0.0246     | 0.313      | <0.01      | <0.067    | 0.0865         | <0.01      | 2.9                         | 21          |
| Benzo(g,h,i)perylene   | 0.168                        | 0.0415     | 0.0693     | 0.0663     | 0.0149     | 0.0268     | <0.01      | 0.0142     | 0.396      | <0.01      | <0.067    | 0.251          | <0.01      | --                          | --          |
| Benzo(k)fluoranthene   | 0.186                        | 0.023      | 0.094      | 0.0803     | 0.0163     | 0.0213     | <0.01      | 0.0299     | 0.337      | <0.01      | <0.067    | 0.0737         | <0.01      | --                          | --          |
| Chrysene               | 0.282                        | 0.0304     | 0.127      | 0.077      | 0.0142     | 0.0331     | <0.01      | 0.0373     | 0.524      | <0.01      | 0.101     | 0.107          | <0.01      | --                          | --          |
| Dibenzo(a,h)anthracene | 0.0489                       | <0.01      | 0.0199     | 0.0262     | <0.01      | <0.01      | <0.01      | <0.01      | 0.0938     | <0.01      | <0.067    | <0.067         | <0.01      | 0.29                        | 2.1         |
| Fluoranthene           | 0.35                         | 0.0497     | 0.179      | 0.095      | 0.0205     | 0.0386     | <0.01      | 0.0597     | 0.744      | <0.01      | 0.121     | 0.134          | <0.01      | --                          | --          |
| Fluorene               | <0.0268                      | <0.01      | <0.01      | <0.01      | <0.01      | <0.01      | <0.01      | <0.01      | <0.0268    | <0.01      | <0.067    | <0.067         | <0.01      | --                          | --          |
| Indeno(1,2,3-cd)pyrene | 0.137                        | 0.0274     | 0.0568     | 0.0581     | 0.0135     | 0.0228     | <0.01      | 0.0127     | 0.269      | <0.01      | <0.067    | 0.156          | <0.01      | 2.9                         | 21          |
| Naphthalene            | <0.0268                      | <0.01      | 0.0114     | <0.01      | <0.01      | 0.0157     | <0.01      | 0.0127     | <0.0268    | <0.01      | <0.067    | <0.067         | <0.01      | --                          | --          |
| Phenanthrene           | 0.148                        | 0.0363     | 0.0465     | 0.0487     | <0.01      | 0.0315     | <0.01      | 0.0366     | 0.425      | <0.01      | 0.0716    | 0.113          | <0.01      | --                          | --          |
| Pyrene                 | 0.0434                       | 0.0667     | 0.207      | 0.115      | 0.0234     | 0.0543     | <0.01      | 0.0709     | 1.04       | <0.01      | 0.189     | 0.255          | 0.0102     | --                          | --          |

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Notes:

1. Shading identifies samples representing soil subsequently excavated.
2. Bold represents detected concentration above the cleanup level.
3. mg/kg = milligrams per kilogram (ppm).
4. PAHs = Polynuclear Aromatic Hydrocarbons.

**Table 5 - Analytical Results: Confirmation Soil Samples for Area 2 (PAHs)**  
**Terminal 1 South Removal Action Report**  
**Portland, Oregon**

| Sample Number              | T1-2N(3-10) | T1-2W(0-3) | T1-2W(3-10) | T1-2FW(0-3) | Human Health Cleanup Levels |             |
|----------------------------|-------------|------------|-------------|-------------|-----------------------------|-------------|
| Sample Date                | 16-Aug-02   | 16-Aug-02  | 16-Aug-02   | 16-Aug-02   |                             |             |
| Sample Area                | Area 2      | Area 2     | Area 2      | Area 2      |                             |             |
| Sample Depth               | 3 - 10 feet | 0 - 3 feet | 3 - 10 feet | 0 - 3 feet  | 0 - 3 feet                  | 0 - 10 feet |
| <b>PAHs (EPA 8270 SIM)</b> |             |            |             |             |                             |             |
| Acenaphthene               | <0.0134     | <0.0134    | <0.0134     | <0.0134     | --                          | --          |
| Acenaphthylene             | <0.0134     | <0.0134    | <0.0134     | <0.0134     | --                          | --          |
| Anthracene                 | 0.0208      | <0.0134    | <0.0134     | <0.0134     | --                          | --          |
| Benzo(a)anthracene         | 0.0599      | 0.0162     | <0.0134     | <0.0134     | 2.9                         | 21          |
| Benzo(a)pyrene             | 0.0796      | 0.0198     | <0.0134     | <0.0134     | 0.29                        | 2.1         |
| Benzo(b)fluoranthene       | 0.0483      | <0.0134    | <0.0134     | <0.0134     | 2.9                         | 21          |
| Benzo(g,h,i)perylene       | 0.0637      | 0.0147     | <0.0134     | <0.0134     | --                          | --          |
| Benzo(k)fluoranthene       | 0.0468      | 0.0143     | <0.0134     | <0.0134     | --                          | --          |
| Chrysene                   | 0.0707      | 0.02       | <0.0134     | <0.0134     | --                          | --          |
| Dibenzo(a,h)anthracene     | <0.0134     | <0.0134    | <0.0134     | <0.0134     | 0.29                        | 2.1         |
| Fluoranthene               | 0.0887      | 0.0227     | <0.0134     | <0.0134     | --                          | --          |
| Fluorene                   | <0.0134     | <0.0134    | <0.0134     | <0.0134     | --                          | --          |
| Ideno(1,2,3-cd)pyrene      | 0.0442      | <0.0134    | <0.0134     | <0.0134     | 2.9                         | 21          |
| Napthalene                 | <0.0134     | <0.0134    | <0.0134     | <0.0134     | --                          | --          |
| Phenanthrene               | 0.0865      | <0.0134    | <0.0134     | <0.0134     | --                          | --          |
| Pyrene                     | 0.169       | 0.0356     | <0.0134     | 0.0176      | --                          | --          |

F:\Data\Jobs\Port of Portland\15230-01 Term 1 Support\Parcel 2\Construction Report\Tables (Table 5)

**Notes:**

1. Shading identifies samples representing soil subsequently excavated.
2. **Bold** represents detected concentration above the cleanup level.
3. mg/kg = milligrams per kilogram (ppm).
4. PAHs = Polynuclear Aromatic Hydrocarbons.



**Table 6 - Analytical Results: Confirmation Soil Samples for Area 3 (PAHs)**  
**Terminal 1 South Removal Action Report**  
**Portland, Oregon**

| Sample Number          | T1-3E(0-3)                   | T1-3E2(0-3) | T1-3E(3-10) | T1-3SE(0-3) | T1-3SE(3-10) | T1-3SE2(0-3) | T1-3SE3(0-3) | T1-3SE4(0-3) | Human Health Cleanup Levels |             |
|------------------------|------------------------------|-------------|-------------|-------------|--------------|--------------|--------------|--------------|-----------------------------|-------------|
| Sample Date            | 21-Aug-02                    | 20-Sep-02   | 21-Aug-02   | 21-Aug-02   | 21-Aug-02    | 27-Aug-02    | 20-Sep-02    | 20-Sep-02    |                             |             |
| Sample Area            | Area 3                       | Area 3      | Area 3      | Area 3      | Area 3       | Area 3       | Area 3       | Area 3       |                             |             |
| Sample Depth           | 0 - 3 feet                   | 0 - 3 feet  | 3 - 10 feet | 0 - 3 feet  | 3 - 10 feet  | 0 - 3 feet   | 0 - 3 feet   | 0 - 3 feet   | 0 - 3 feet                  | 0 - 10 feet |
| PAHs (EPA 8270 SIM)    |                              |             |             |             |              |              |              |              |                             |             |
|                        | Concentration in mg/kg (ppm) |             |             |             |              |              |              |              |                             |             |
| Acenaphthene           | <0.01                        | <0.01       | 0.0219      | 0.0273      | <0.01        | <0.01        | 0.0228       | <0.05        | --                          | --          |
| Acenaphthylene         | <0.01                        | <0.01       | 0.0306      | 0.0345      | 0.0111       | 0.0147       | 0.0292       | 0.0506       | --                          | --          |
| Anthracene             | <0.01                        | <0.01       | 0.0583      | 0.0978      | 0.0158       | 0.033        | 0.106        | 0.0904       | --                          | --          |
| Benzo(a)anthracene     | 0.0249                       | 0.0324      | 0.151       | 0.157       | 0.0364       | 0.127        | 0.167        | 0.228        | 2.9                         | 21          |
| Benzo(a)pyrene         | 0.0257                       | 0.0427      | 0.166       | 0.16        | 0.0538       | 0.21         | 0.149        | 0.311        | 0.29                        | 2.1         |
| Benzo(b)fluoranthene   | 0.0159                       | 0.0285      | 0.0948      | 0.105       | 0.0396       | 0.116        | 0.0946       | 0.181        | 2.9                         | 21          |
| Benzo(g,h,i)perylene   | 0.0136                       | 0.0372      | 0.101       | 0.115       | 0.0499       | 0.173        | 0.0975       | 0.734        | --                          | --          |
| Benzo(k)fluoranthene   | 0.0234                       | 0.0301      | 0.111       | 0.129       | 0.0364       | 0.117        | 0.121        | 0.166        | --                          | --          |
| Chrysene               | 0.0226 J                     | 0.0316 J    | 0.155 J     | 0.171 J     | 0.0404 J     | 0.137 J      | 0.159 J      | 0.231 J      | --                          | --          |
| Dibenzo(a,h)anthracene | <0.01                        | 0.0127      | 0.0306      | 0.0345      | 0.015        | 0.0396       | 0.0277       | <0.05        | 0.29                        | 2.1         |
| Fluoranthene           | 0.0294                       | 0.0435      | 0.231       | 0.309       | 0.0855       | 0.191        | 0.269        | 0.354        | --                          | --          |
| Fluorene               | <0.01 J                      | <0.01 J     | 0.0306 J    | 0.0324 J    | 0.0174 J     | <0.01 J      | 0.0135 J     | <0.05 J      | --                          | --          |
| Ideno(1,2,3-cd)pyrene  | 0.0128 J                     | 0.0227 J    | 0.0773 J    | 0.0856 J    | 0.0348 J     | 0.115 J      | 0.0832 J     | 0.354 J      | 2.9                         | 21          |
| Napthalene             | <0.01                        | <0.01       | <0.01       | 0.0129      | 0.0166       | <0.01        | <0.01        | <0.05        | --                          | --          |
| Phenanthrene           | 0.0159                       | 0.0261      | 0.232       | 0.302       | 0.0594       | 0.108        | 0.369        | 0.286        | --                          | --          |
| Pyrene                 | 0.043                        | 0.0561      | 0.435       | 0.47        | 0.116        | 0.281        | 0.356        | 0.535        | --                          | --          |

F:\Data\Jobs\Port of Portland\15230-01 Term 1 Support\Parcel 2\Construction Report\Tables (Table 6)

**Notes:**

1. Shading identifies samples representing soil subsequently excavated.
2. **Bold** represents detected concentration above the cleanup level.
3. mg/kg = milligrams per kilogram (ppm).
4. PAHs = Polynuclear Aromatic Hydrocarbons.
5. J = Associated value or method reporting limit is estimated.

**Table 7 - Analytical Results: Confirmation Soil Samples for Area 4 (PAHs)**  
**Terminal 1 South Removal Action Report**  
**Portland, Oregon**

| Sample Number              | 4E         | Human Health Cleanup Levels |             |
|----------------------------|------------|-----------------------------|-------------|
| Sample Date                | 09-Aug-02  |                             |             |
| Sample Area                | Area 4     |                             |             |
| Sample Depth               | 0 - 3 feet | 0 - 3 feet                  | 0 - 10 feet |
| <b>PAHs (EPA 8270 SIM)</b> |            |                             |             |
| Acenaphthene               | <0.0134    | --                          | --          |
| Acenaphthylene             | <0.0134    | --                          | --          |
| Anthracene                 | <0.0134    | --                          | --          |
| Benzo(a)anthracene         | <0.0134    | 2.9                         | 21          |
| Benzo(a)pyrene             | <0.0134    | 0.29                        | 2.1         |
| Benzo(b)fluoranthene       | <0.0134    | 2.9                         | 21          |
| Benzo(g,h,i)perylene       | <0.0134    | --                          | --          |
| Benzo(k)fluoranthene       | <0.0134    | --                          | --          |
| Chrysene                   | <0.0134    | --                          | --          |
| Dibenzo(a,h)anthracene     | <0.0134    | 0.29                        | 2.1         |
| Fluoranthene               | <0.0134    | --                          | --          |
| Fluorene                   | <0.0134    | --                          | --          |
| Ideno(1,2,3-cd)pyrene      | <0.0134    | 2.9                         | 21          |
| Napthalene                 | <0.0134    | --                          | --          |
| Phenanthrene               | <0.0134    | --                          | --          |
| Pyrene                     | <0.0134    | --                          | --          |

F:\Data\Jobs\Port of Portland\15230-01 Term 1 Support\Parcel 2\Construction Report\Tables (Table 7)

**Notes:**

1. Shading identifies samples representing soil subsequently excavated.
2. **Bold** represents detected concentration above the cleanup level.
3. mg/kg = milligrams per kilogram (ppm).
4. PAHs = Polynuclear Aromatic Hydrocarbons.

**Table 8 - Analytical Results: Confirmation Soil Samples for Area 5 (PAHs)**  
**Terminal 1 South Removal Action Report**  
**Portland, Oregon**

| Sample Number              | 5W         | 5B         | Human Health Cleanup Levels |             |
|----------------------------|------------|------------|-----------------------------|-------------|
| Sample Date                | 09-Aug-02  | 09-Aug-02  |                             |             |
| Sample Area                | Area 5     | Area 5     |                             |             |
| Sample Depth               | 0 - 3 feet | 0 - 3 feet | 0 - 3 feet                  | 0 - 10 feet |
| <b>PAHs (EPA 8270 SIM)</b> |            |            |                             |             |
| Acenaphthene               | <0.0134    | <0.0134    | --                          | --          |
| Acenaphthylene             | <0.0134    | <0.0134    | --                          | --          |
| Anthracene                 | <0.0134    | <0.0134    | --                          | --          |
| Benzo(a)anthracene         | <0.0134    | <0.0134    | 2.9                         | 21          |
| Benzo(a)pyrene             | <0.0134    | <0.0134    | 0.29                        | 2.1         |
| Benzo(b)fluoranthene       | <0.0134    | <0.0134    | 2.9                         | 21          |
| Benzo(g,h,i)perylene       | <0.0134    | <0.0134    | --                          | --          |
| Benzo(k)fluoranthene       | <0.0134    | <0.0134    | --                          | --          |
| Chrysene                   | <0.0134    | <0.0134    | --                          | --          |
| Dibenzo(a,h)anthracene     | <0.0134    | <0.0134    | 0.29                        | 2.1         |
| Fluoranthene               | <0.0134    | <0.0134    | --                          | --          |
| Fluorene                   | <0.0134    | <0.0134    | --                          | --          |
| Ideno(1,2,3-cd)pyrene      | <0.0134    | <0.0134    | 2.9                         | 21          |
| Napthalene                 | <0.0134    | <0.0134    | --                          | --          |
| Phenanthrene               | <0.0134    | <0.0134    | --                          | --          |
| Pyrene                     | <0.0134    | <0.0134    | --                          | --          |

F:\Data\Jobs\Port of Portland\15230-01 Term 1 Support\Construction Report\Tables (Table 8)

**Notes:**

1. Shading identifies samples representing soil subsequently excavated.
2. **Bold** represents detected concentration above the cleanup level.
3. mg/kg = milligrams per kilogram (ppm).
4. PAHs = Polynuclear Aromatic Hydrocarbons.

**Table 9 - Analytical Results: Confirmation Soil Samples for Area 6 (PAHs)**  
**Terminal 1 South Removal Action Report**  
**Portland, Oregon**

| Sample Number              | 6B         | Human Health Cleanup Levels |             |
|----------------------------|------------|-----------------------------|-------------|
| Sample Date                | 22-Aug-02  |                             |             |
| Sample Area                | Area 6     |                             |             |
| Sample Depth               | 0 - 3 feet | 0 - 3 feet                  | 0 - 10 feet |
| <b>PAHs (EPA 8270 SIM)</b> |            |                             |             |
| Acenaphthene               | <0.01      | --                          | --          |
| Acenaphthylene             | <0.01      | --                          | --          |
| Anthracene                 | <0.01      | --                          | --          |
| Benzo(a)anthracene         | 0.0243     | 2.9                         | 21          |
| Benzo(a)pyrene             | 0.025      | 0.29                        | 2.1         |
| Benzo(b)fluoranthene       | 0.0181     | 2.9                         | 21          |
| Benzo(g,h,i)perylene       | 0.0194     | --                          | --          |
| Benzo(k)fluoranthene       | 0.0188     | --                          | --          |
| Chrysene                   | 0.025      | --                          | --          |
| Dibenzo(a,h)anthracene     | <0.01      | 0.29                        | 2.1         |
| Fluoranthene               | 0.0382     | --                          | --          |
| Fluorene                   | <0.01      | --                          | --          |
| Ideno(1,2,3-cd)pyrene      | 0.0146     | 2.9                         | 21          |
| Napthalene                 | <0.01      | --                          | --          |
| Phenanthrene               | 0.016      | --                          | --          |
| Pyrene                     | 0.0486     | --                          | --          |

F:\Data\Jobs\Port of Portland\15230-01 Term 1 Support\Parcel 2\Parcel 2\Construction Report\Tables (Table 9)

**Notes:**

1. Shading identifies samples representing soil subsequently excavated.
2. **Bold** represents detected concentration above the cleanup level.
3. mg/kg = milligrams per kilogram (ppm).
4. PAHs = Polynuclear Aromatic Hydrocarbons.

**Table 10 - Analytical Results: Stockpile Samples (TPH-Dx)**  
**Terminal 1 South Removal Action Report**  
**Portland, Oregon**

| Sample ID | Sample Date | NWTPH-Dx                     |      | Total TPH-Dx<br>Concentration |
|-----------|-------------|------------------------------|------|-------------------------------|
|           |             | Diesel                       | Oil  |                               |
|           |             | Concentration in mg/kg (ppm) |      |                               |
| Stockpile |             |                              |      |                               |
| SP-A3     | 16-Aug-02   | <250                         | 664  | 664                           |
| SP1-A3    | 19-Aug-02   | <25                          | 136  | 136                           |
| SP2-A3    | 19-Aug-02   | <50                          | 161  | 161                           |
| SP3-A3    | 19-Aug-02   | <50                          | 159  | 159                           |
| SP4-A3    | 19-Aug-02   | <50                          | <100 | <100                          |
| SP5-A3    | 19-Aug-02   | <250                         | 780  | 780                           |

F:\Data\Jobs\Port of Portland\15230-01 Term 1 Support\Parcel 2\Construction Report\Tables (Table 10)

**Notes:**

1. **Bold** represents detected concentration above the Urban Resident Child scenario (700 mg/kg).
2. NWTPH-Dx = Northwest Total Petroleum Hydrocarbon Diesel Extended.
3. mg/kg = milligrams per kilogram (ppm).

**Table 11 - Analytical Results: Stockpile Samples (PAHs)**  
**Terminal 1 South Removal Action Report**  
**Portland, Oregon**

| Sample Number              | SP1-A3                       | SP2-A3       | SP3-A3       | SP4-A3       | SP5-A3       | SP-A3        | Human Health |
|----------------------------|------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Sample Date                | 19-Aug-02                    | 19-Aug-02    | 19-Aug-02    | 19-Aug-02    | 19-Aug-02    | 16-Aug-02    | Cleanup      |
| Sample Area                | Area 3                       | Area 3       | Area 3       | Area 3       | Area 3       | Area 3       | Residential  |
| Sample Designation         | Stockpile                    | Stockpile    | Stockpile    | Stockpile    | Stockpile    | Stockpile    | 0 to 3 feet  |
| <b>PAHs (EPA 8270 SIM)</b> | Concentration in mg/kg (ppm) |              |              |              |              |              |              |
| Acenaphthene               | <0.02                        | 0.0519       | 0.0699       | <0.02        | 0.251        | <0.134       | --           |
| Acenaphthylene             | <0.02                        | 0.0735       | 0.0539       | 0.0515       | 0.17         | <0.134       | --           |
| Anthracene                 | 0.0256                       | 0.209        | 0.221        | 0.12         | 0.595        | 0.145        | --           |
| Benzo(a)anthracene         | 0.0648                       | 0.451        | 0.662        | 0.333        | <b>3.7</b>   | 1.05         | 2.9          |
| Benzo(a)pyrene             | 0.0965                       | <b>0.809</b> | <b>0.822</b> | <b>0.346</b> | <b>4.7</b>   | <b>2.18</b>  | 0.29         |
| Benzo(b)fluoranthene       | 0.0678                       | 0.363        | 0.465        | 0.208        | 2.34         | 0.967        | 2.9          |
| Benzo(g,h,i)perylene       | 0.0935                       | 0.655        | 0.495        | 0.2          | 2.54         | 1.76         | --           |
| Benzo(k)fluoranthene       | 0.0573                       | 0.456        | 0.49         | 0.291        | 2.64         | 1.09         | --           |
| Chrysene                   | 0.0769 J                     | 0.484 J      | 0.689 J      | 0.303 J      | 3.72 J       | 1.41         | --           |
| Dibenzo(a,h)anthracene     | 0.0256                       | 0.186        | 0.165        | 0.0788       | <b>0.916</b> | <b>0.445</b> | 0.29         |
| Fluoranthene               | 0.115                        | 0.665        | 0.97         | 0.524        | 6.41         | 0.969        | --           |
| Fluorene                   | 0.0332 J                     | 0.0807 J     | 0.106 J      | 0.0455 J     | 0.267 J      | <0.134       | --           |
| Ideno(1,2,3-cd)pyrene      | 0.0573 J                     | 0.43 J       | 0.364 J      | 0.153 J      | 1.88 J       | 1.27         | 2.9          |
| Napthalene                 | <0.02                        | 0.0303       | 0.0379       | <0.02        | 0.255        | <0.134       | --           |
| Phenanthrene               | 0.0874                       | 0.502        | 0.667        | 0.289        | 3.24         | 0.458        | --           |
| Pyrene                     | 0.225                        | 1.2          | 1.93         | 0.75         | 10.7         | 2.21         | --           |

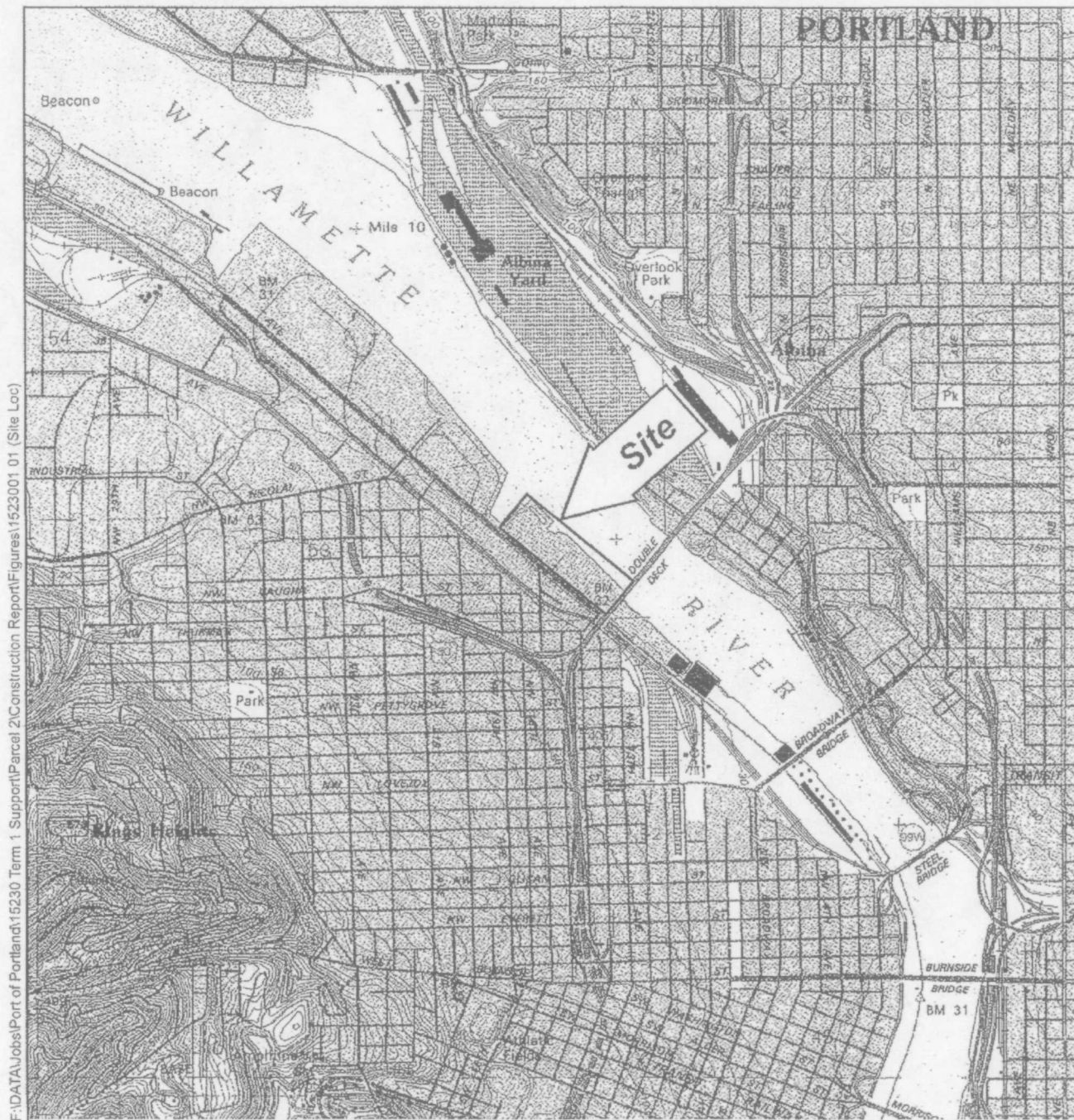
F:\Data\Jobs\Port of Portland\15230-01 Term 1 Support\Parcel 2\Construction Report\Tables (Table 11)

**Notes:**

1. **Bold** represents detected concentration above cleanup level for residential soil (0 - 3 ft depth).
2. mg/kg = milligrams per kilogram (ppm).
3. PAHs = Polynuclear Aromatic Hydrocarbons.

# Site Location Map

Terminal 1 South, Parcel 2 Removal Action  
Port of Portland, Portland, Oregon



Note: Base map prepared from the USGS 7.5-minute quadrangle of Portland, OR dated 1990.



0 2,000 4,000  
Scale in Feet  
Contour Interval 10 Feet

**HARTCROWSER**  
15230-01 10/02  
Figure 1

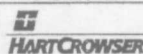
POPT1S602721



LEGEND:

|  |   |  |   |
|--|---|--|---|
|  | FOUND MONUMENT AS NOTED                 |  | ROOF DRAIN                                  |
|  | FOUND BENCHMARK                         |  | SIGN  |
|  | CATCH BASIN                             |  | SANITARY SEWER MAN-HOLE                     |
|  | FIRE HYDRANT                            |  | WATER MAN-HOLE                              |
|  | FIRE DEPT. CONNECTION                   |  | UNDIFFERENTIATED MAN-HOLE (FROM C.O.P. MAP) |
|  | GAS VALVE                               |  | STREET LIGHT/TRAFFIC LIGHT                  |
|  | CLEANOUT                                |  | STREET LIGHT/TRAFFIC LIGHT POLE             |
|  | BOLLARD                                 |  | STS OUTFALL                                 |
|  | WATER VALVE                             |  | ELECTRICAL LINE                             |
|  | TRAFFIC SIGNAL POLE                     |  | GAS LINE                                    |
|  | JUNCTION BOX                            |  | STORM DRAIN LINE                            |
|  | TELEPHONE RISER                         |  | SANITARY SEWER LINE                         |
|  | DRYWELL                                 |  | WATER LINE                                  |
|  | MONITORING WELL LOCATION AND NUMBER     |  | OVERHEAD POWER OR TELEPHONE LINES           |
|  | GEOTECHNICAL BORING LOCATION AND NUMBER |  |   |
|  | ENVIRONMENTAL INVESTIGATION BORING      |  |   |

PORT OF PORTLAND  
PORTLAND, OREGON



2002019  
REVISION

2002 500  
PROJECT NUMBER

DESIGNED BY: H. CLOUGH  
DRAWN BY: J. BIGSBY  
CHECKED BY: H. CLOUGH  
DATE: OCT 2002  
SCALE:

TERMINAL 1 - SOUTH

REMEDIAL ACTION - PARCEL 2 (AREA B)  
SYMBOLS AND ABBREVIATIONS

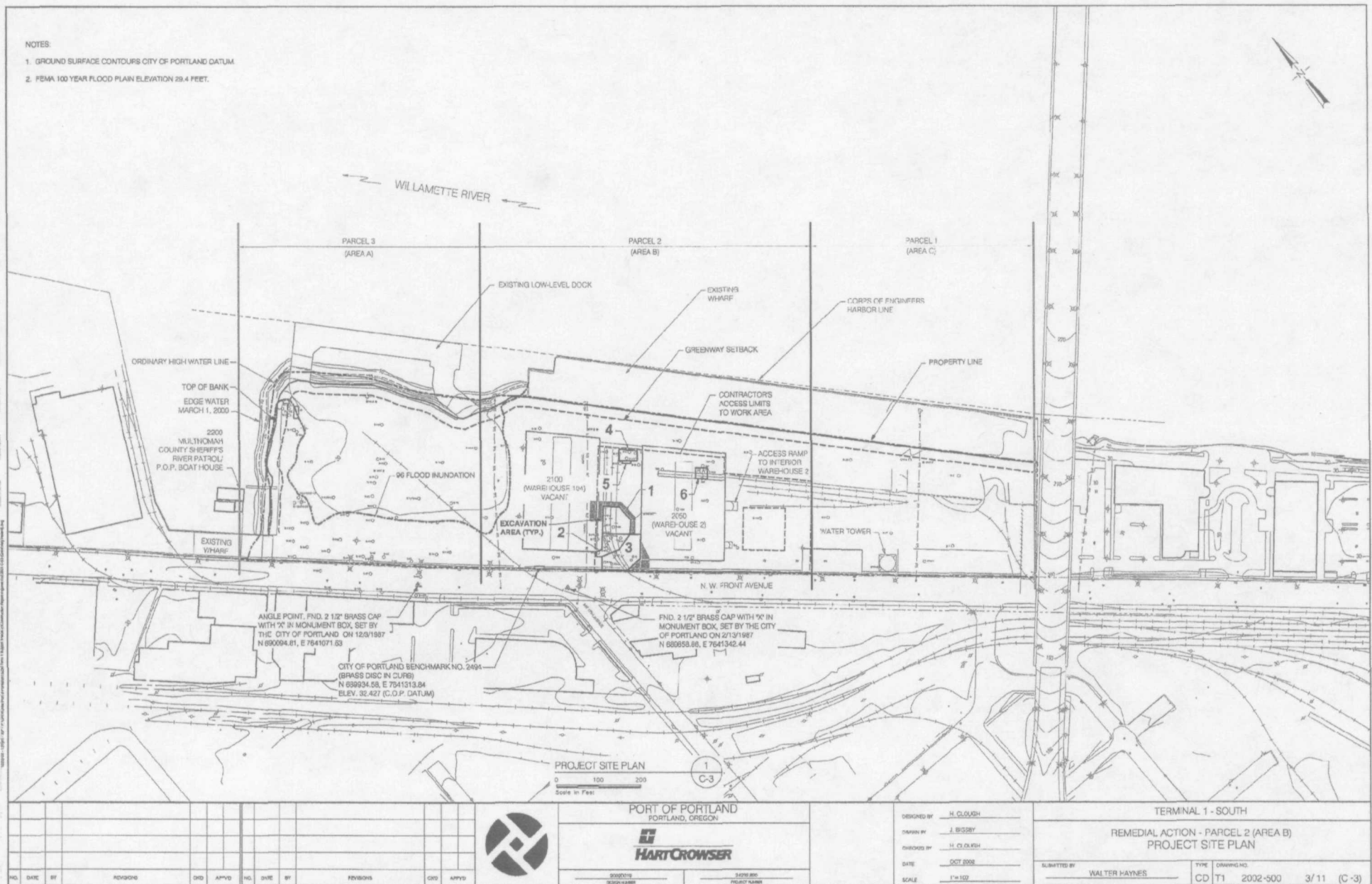
SUBMITTED BY: WALTER HAYNES

TYPE: CD T1  
DRAWING NO: 2002-500  
2/11 (C-2)

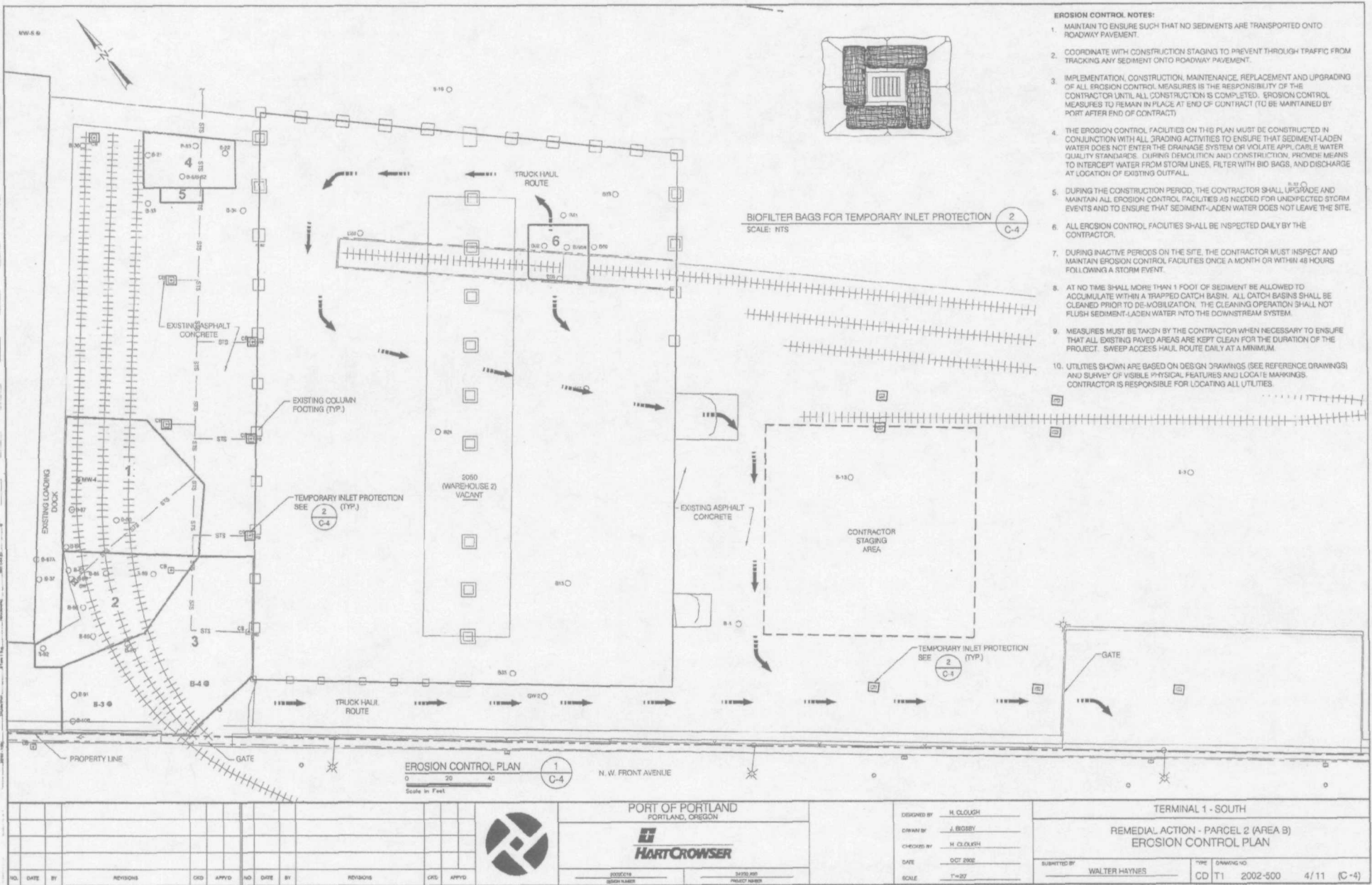
POPT1S602722



1. GROUND SURFACE CONTOURS CITY OF PORTLAND DATUM.  
2. FEMA 100 YEAR FLOOD PLAIN ELEVATION 29.4 FEET.

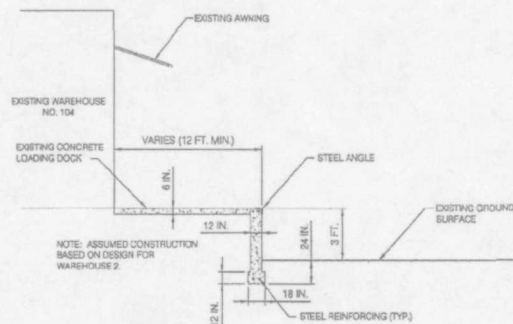


POP T1S602723



# DEMOLITION NOTES:

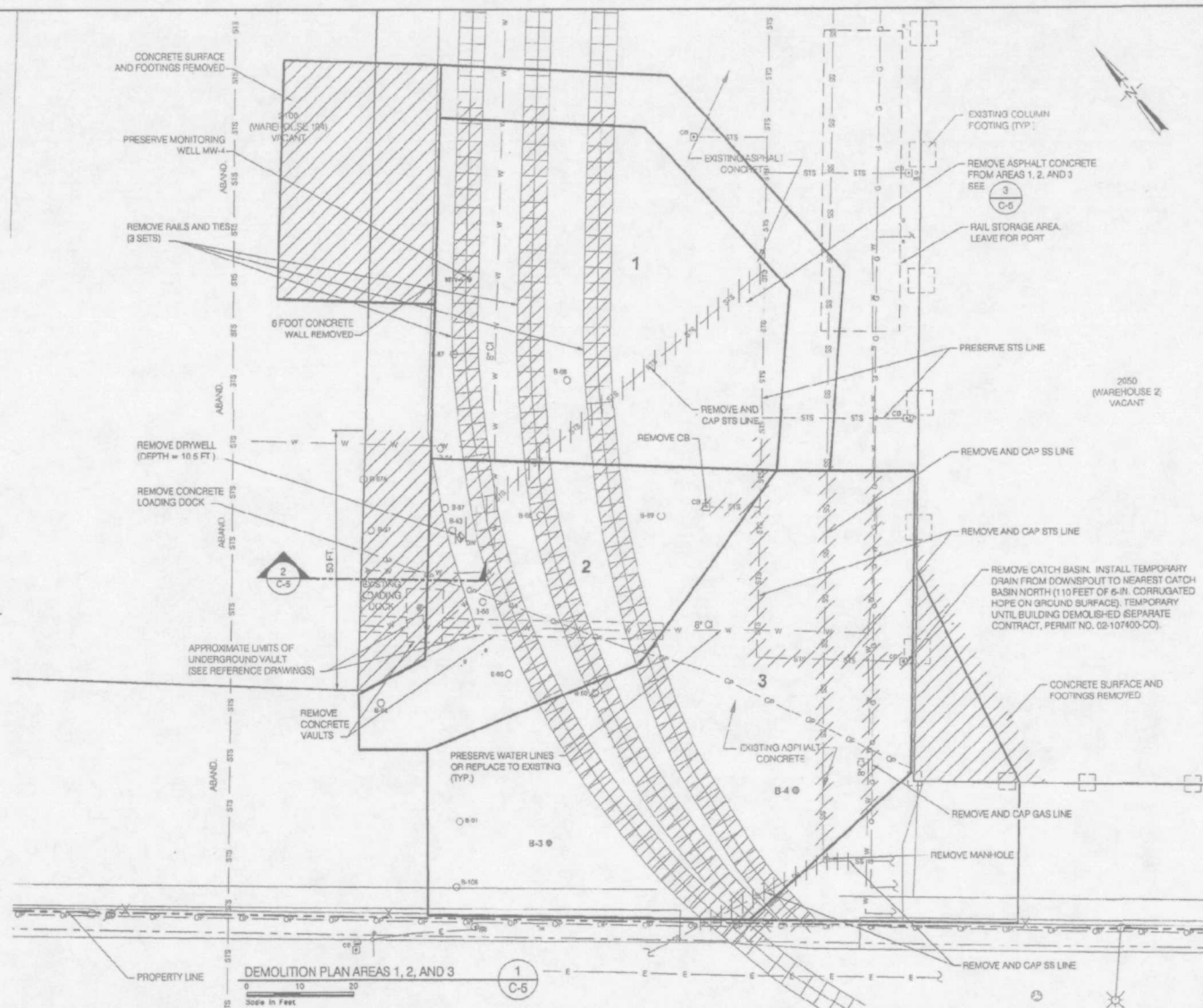
- RAILS SHALL BE REMOVED TO THE FIRST JOINT OUTSIDE THE EXCAVATION AREA. THREE RAILS ARE PRESENT IN CURVED PORTION OF EACH RAILROAD. STACK RAILS IN RAIL STORAGE AREA. REMOVE ANY ASPHALT CONCRETE OR SOIL CLINGING TO RAILS.
- RAILROAD TIES SHALL BE RECYCLED OR DISPOSED OF OFF-SITE AT A PERMITTED FACILITY.
- ASPHALT CONCRETE AND PORTLAND CEMENT CONCRETE SHALL BE RECYCLED OR DISPOSED OF OFF-SITE AT A PERMITTED FACILITY.
- ASPHALT CONCRETE AND PORTLAND CEMENT CONCRETE SHALL BE SAWCUT OR REMOVED TO A JOINT. CUTS SHALL BE 1 FOOT NOMINAL FROM PROPOSED EDGE OF EXCAVATION. PROPOSED EDGE OF EXCAVATION SHALL ACCOMMODATE CONTRACTOR DETERMINED SLOPES.
- SOIL EXCAVATED BENEATH DEMOLISHED LOADING DOCK ABOVE EXISTING GRADE OF AREA 2 SHALL BE STOCKPILED AS "CLEAN OVERBURDEN".
- UTILITIES SHOWN ARE BASED ON DESIGN DRAWINGS (SEE REFERENCE DRAWINGS) AND SURVEY OF VISIBLE PHYSICAL FEATURES AND LOCATE MARKINGS. CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UTILITIES.
- PORT WILL IDENTIFY UTILITY SHUTOFFS TO CONTRACTOR.
- WAREHOUSE 104 AND WAREHOUSE 2 DEMOLISHED ABOVE SLAB-ON-GRADE BY OTHERS PRIOR TO WORK.



CONCRETE LOADING DOCK DETAIL  
SCALE: NTS

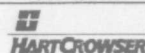


EXISTING ASPHALT CONCRETE DETAIL  
SCALE: NTS



DEMOLITION PLAN AREAS 1, 2, AND 3

PORT OF PORTLAND  
PORTLAND, OREGON



DESIGNED BY: J. BERRY  
CHECKED BY: H. CLOUGH  
DATE: OCT 2002  
SCALE: 1"=10'

TERMINAL 1 - SOUTH

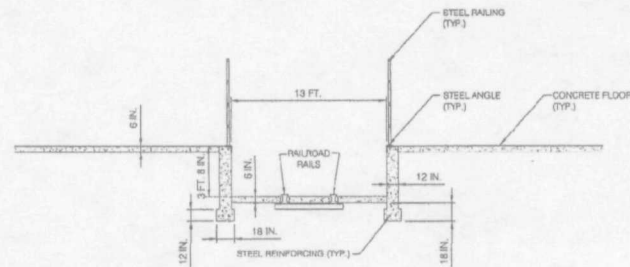
REMEDIAL ACTION - PARCEL 2 (AREA B)  
DEMOLITION PLAN - AREAS 1, 2, AND 3

SUBMITTED BY: WALTER HAYNES  
DATE: 5/11  
DRAWING NO.: CD T1 2002-500  
SCALE: 1"=10'



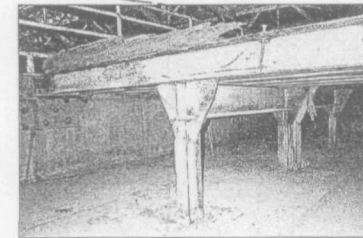
# DEMOLITION NOTES:

1. RAILS SHALL BE REMOVED TO THE FIRST JOINT OUTSIDE THE EXCAVATION AREA. STACK RAILS IN RAIL STORAGE AREA. REMOVE ANY ASPHALT CONCRETE OR SOIL CLINGING TO RAILS.
2. RAILROAD TIES SHALL BE RECYCLED OR DISPOSED OF OFF-SITE AT A PERMITTED FACILITY.
3. ASPHALT CONCRETE AND PORTLAND CEMENT CONCRETE SHALL BE RECYCLED OR DISPOSED OF OFF-SITE AT A PERMITTED FACILITY.
4. ASPHALT CONCRETE AND PORTLAND CEMENT CONCRETE SHALL BE SAWCUT OR REMOVED TO A JOINT. CUTS SHALL BE 1 FOOT (NOMINAL) FROM PROPOSED EDGE OF EXCAVATION. PROPOSED EDGE OF EXCAVATION SHALL ACCOMMODATE "CONTRACTOR DETERMINED SLOPES".
5. STEEL BRIDGE SHALL BE NEATLY PLACED WITHIN WAREHOUSE 2 AND LEFT FOR PORT.
6. UTILITIES SHOWN ARE BASED ON DESIGN DRAWINGS (SEE REFERENCE DRAWINGS) AND SURVEY OF VISIBLE PHYSICAL FEATURES AND LOCATE MARKINGS. CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UTILITIES.
7. PORT WILL IDENTIFY UTILITY SHUT-OFFS TO CONTRACTOR.



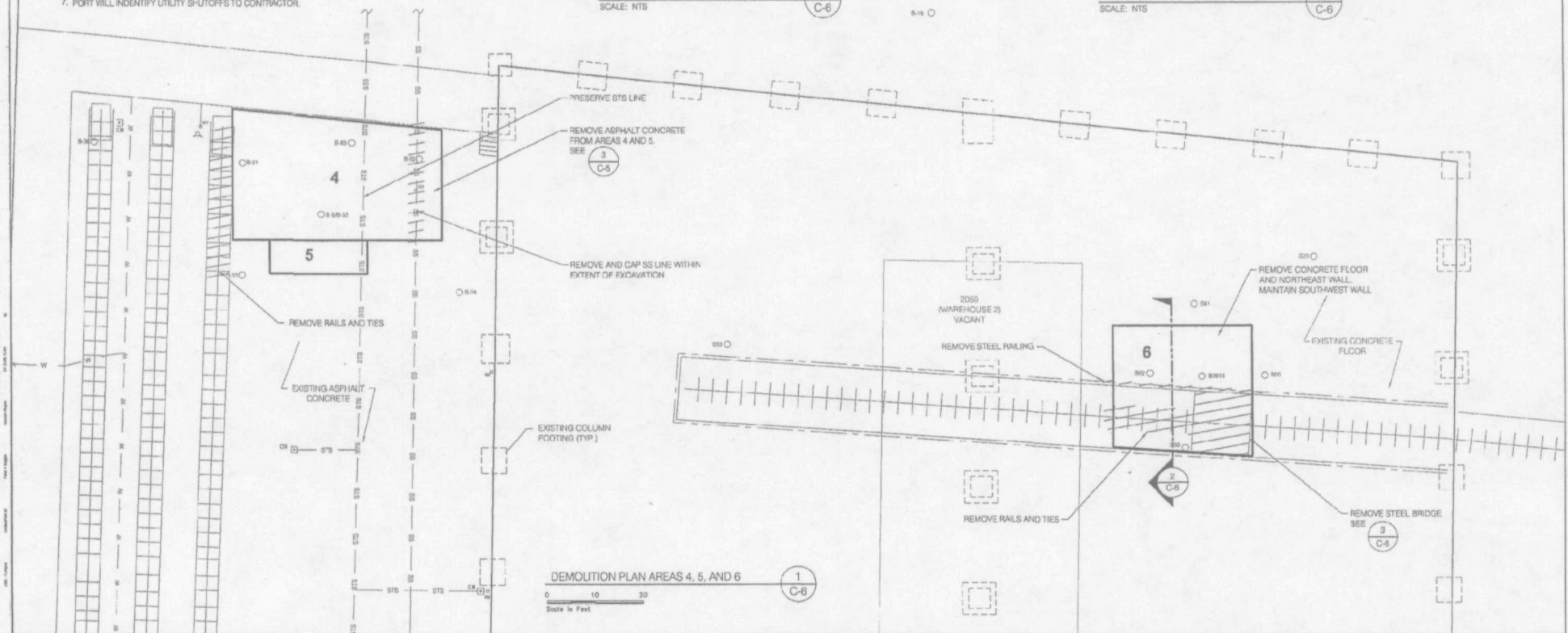
AREA 6 EXISTING CONSTRUCTION  
SCALE: NTS

2  
C-6



PHOTOGRAPH OF STEEL BRIDGE  
SCALE: NTS

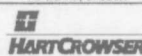
3  
C-6



DEMOLITION PLAN AREAS 4, 5, AND 6  
Scale in Feet

1  
C-6

PORT OF PORTLAND  
PORTLAND, OREGON



DESIGNER

PROJECT NUMBER

DESIGNER

PROJECT NUMBER

DRAWN BY: H. CLOUGH  
CHECKED BY: J. DICKSON  
DATE: OCT 2003  
SCALE: 1"=10'

TERMINAL 1 - SOUTH

REMEDIAL ACTION - PARCEL 2 (AREA B)  
DEMOLITION PLAN - AREAS 4, 5, AND 6

SUBMITTED BY: WALTER HAYNES

TYPE: CD  
DRAWING NO.: 11  
2002-500  
6/11 (C-6)

| NO. | DATE | BY | REVISIONS | CD | APPROV | NO. | DATE | BY | REVISIONS | CD | APPROV |
|-----|------|----|-----------|----|--------|-----|------|----|-----------|----|--------|
|     |      |    |           |    |        |     |      |    |           |    |        |

# EXCAVATION NOTES:

1. EXCAVATE SOIL FROM THE AREAS AND TO THE ELEVATIONS SHOWN.
2. CONTRACTOR SHALL SLOPE OR SHORE EXCAVATIONS AS INDICATED ON THE DETAILS ON SHEET C-8. ALL WORK SHALL BE IN ACCORDANCE WITH OSHA REGULATIONS.
3. NOMINAL AREAS, DEPTHS, AND VOLUMES FOR NEAT LINE DIMENSIONS ARE PROVIDED IN THE SCHEDULE BELOW. EXCAVATION VOLUMES REQUIRED FOR "CONTRACTOR DETERMINED SLOPES" ARE NOT INCLUDED IN THE SCHEDULE BELOW.
4. "CLEAN OVERBURDEN" SHALL BE STOCKPILED AT A LOCATION DETERMINED BY CONTRACTOR. "CLEAN OVERBURDEN" SHALL BE USED TO BACKFILL EXCAVATIONS.
5. "CONTAMINATED SOIL" SHALL BE REMOVED FROM THE SITE FOR TREATMENT OR DISPOSAL AT A PERMITTED FACILITY.
6. BACKFILL EXCAVATIONS TO EXISTING ELEVATION. PLACE GEOTEXTILE ON EXCAVATION FLOOR AND WALLS PRIOR TO BACKFILLING. FILL SHALL BE "CLEAN OVERBURDEN" OR PORT "BORROW". ANY EXCAVATION IN THE AREA OF THE DISCLOSED LOADING DOCK SHALL BE FILLED TO THE GRADE OF AREA 2.
7. UTILITIES SHOWN ARE BASED ON DESIGN DRAWINGS (SEE REFERENCE DRAWINGS) AND SURVEY OF VISIBLE PHYSICAL FEATURES AND LOCATE MARKINGS. CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UTILITIES.
8. PORT WILL IDENTIFY UTILITY SHUTOFFS TO CONTRACTOR.

## SCHEDULE OF EXCAVATION AREAS, DEPTHS, AND VOLUMES:

| AREA   | AREA (SQUARE FEET) | EXCAVATION DEPTH (FEET) | CLEAN OVERBURDEN DEPTH (FEET) | ADDITIONAL EXCAVATION VOLUME (CUBIC YARDS) | CONTAMINATED SOIL VOLUME (CUBIC YARDS) |
|--------|--------------------|-------------------------|-------------------------------|--|--|
| 1      | 6,410              | 3                       | --                            | 436  | 882                                    |
| 2      | 2,510              | 10                      | --                            | --   | 932                                    |
| 3      | 6,411              | 10                      | --                            | 1,068                                      | 2,026                                  |
| TOTALS |                    |                         |                               | 1,504                                      | 3,820                                  |

## EXCAVATION COORDINATES

| POINT | NORTHING | EASTING   | EXISTING ELEV. | BOTTOM EXCAVATION ELEV. |
|-------|----------|-----------|----------------|-------------------------|
| A     | 689358.5 | 7641432.8 | 32.1           | 21.31                   |
| B     | 689362.5 | 7641452.9 | 31.5           | 21.18                   |
| C     | 689370.9 | 7641443.0 | 31.6           | 21.75                   |
| D     | 689378.9 | 7641449.6 | 31.7           | 21.65                   |
| E     | 689375.8 | 7641463.6 | 31.5           | 21.48                   |
| F     | 689364.0 | 7641486.9 | 31.5           | 21.13/27.31             |
| G     | 689351.8 | 7641531.8 | 31.5           | 28.39                   |
| H     | 689325.3 | 7641560.3 | 31.3           | 28.47                   |
| I     | 689384.5 | 7641561.5 | 31.7           | 28.33                   |
| J     | 689380.1 | 7641537.5 | 31.6           | 21.21/28.43             |
| K     | 689343.1 | 7641557.4 | 31.9           | 21.44                   |
| L     | 689300.2 | 7641520.0 | 31.9           | 21.22                   |
| M     | 689296.6 | 7641478.8 | 32.0           | 21.25                   |
| N     | 689310.0 | 7641494.1 | 31.5           | Not Available           |

HORIZONTAL: OREGON STATE PLANE NAD 83

VERTICAL: CITY OF PORTLAND DATUM

CITY OF PORTLAND BENCHMARK NO. 2494  
(BRASS DISC IN CURB)  
N 689334.38, E 7641313.64  
ELEV. 32.427

## Legend:

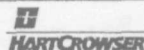
- Confirmation Sample (0-3 Ft. Depth Range)
- Confirmation Sample (5-6 Ft. Depth Range)
- Confirmation Sample (3-10 Ft. Depth Range)
- Confirmation Sample (Bottom Sample)
- Confirmation Sample for PAH Analysis
- Test Pit Location and Number

## EXCAVATION AND FILL PLAN AREAS 1, 2, AND 3

Scale In Feet  
0 10 20

PROPERTY LINE

PORT OF PORTLAND  
PORTLAND, OREGON



DESIGNED BY: H. CLOUGH

DRAWN BY: J. BOBBY

CHECKED BY: H. CLOUGH

DATE: OCT 2002

SCALE: 1"=10'

TERMINAL 1 - SOUTH

REMEDIAL ACTION - PARCEL 2 (AREA B)  
EXCAVATION AND FILL PLAN - AREAS 1, 2, AND 3

SUBMITTED BY: WALTER HAYNES

TYPE: CD T1  
DRAWING NO: 2002-500  
1/11 (C-7)

# EXCAVATION NOTES:

1. EXCAVATE SOIL FROM THE AREAS AND TO THE ELEVATIONS SHOWN.
2. CONTRACTOR SHALL SLOPE OR SHORE EXCAVATIONS AS INDICATED ON THE DETAILS ON SHEET C-8. ALL WORK SHALL BE IN ACCORDANCE WITH OSHA REGULATIONS.
3. NOMINAL AREAS, DEPTHS, AND VOLUMES FOR NEAT LINE DIMENSIONS ARE PROVIDED IN THE SCHEDULE AT RIGHT. EXCAVATION VOLUMES REQUIRED FOR 'CONTRACTOR DETERMINED SLOPES' ARE NOT INCLUDED IN THE SCHEDULE AT RIGHT.
4. 'CONTAMINATED SOIL' SHALL BE REMOVED FROM THE SITE FOR TREATMENT OR DISPOSAL AT A PERMITTED FACILITY.
5. BACKFILL EXCAVATIONS TO EXISTING ELEVATION. PLACE GEOTEXTILE ON EXCAVATION FLOOR AND WALLS PRIOR TO BACKFILLING. FILL SHALL BE 'CLEAN OVERBURDEN' OR PORT 'BORROW'.
6. UTILITIES SHOWN ARE BASED ON DESIGN DRAWINGS (SEE REFERENCE DRAWINGS) AND SURVEY OF VISIBLE PHYSICAL FEATURES AND LOCATE MARKINGS. CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UTILITIES.
7. PORT WILL IDENTIFY UTILITY SHUTOFFS TO CONTRACTOR.

## SCHEDULE OF EXCAVATION AREAS, DEPTHS, AND VOLUMES

| AREA <sup>1</sup> | AREA (SQUARE FEET) | EXCAVATION DEPTH (FEET) | CLEAN OVERBURDEN DEPTH (FEET) | CLEAN OVERBURDEN VOLUME (CUBIC YARDS) | CONTAMINATED SOIL VOLUME (CUBIC YARDS) |
|-------------------|--------------------|-------------------------|-------------------------------|---------------------------------------|--|
| 4                 | 1,104              | 5                       | --                            | --                                    | 204                                    |
| 5                 | 140                | 3                       | --                            | --                                    | 16                                     |
| 6                 | 770                | 5-8                     | --                            | --                                    | 185                                    |
| TOTALS            |                    |                         |                               | 6                                     | 405                                    |

### Legend:

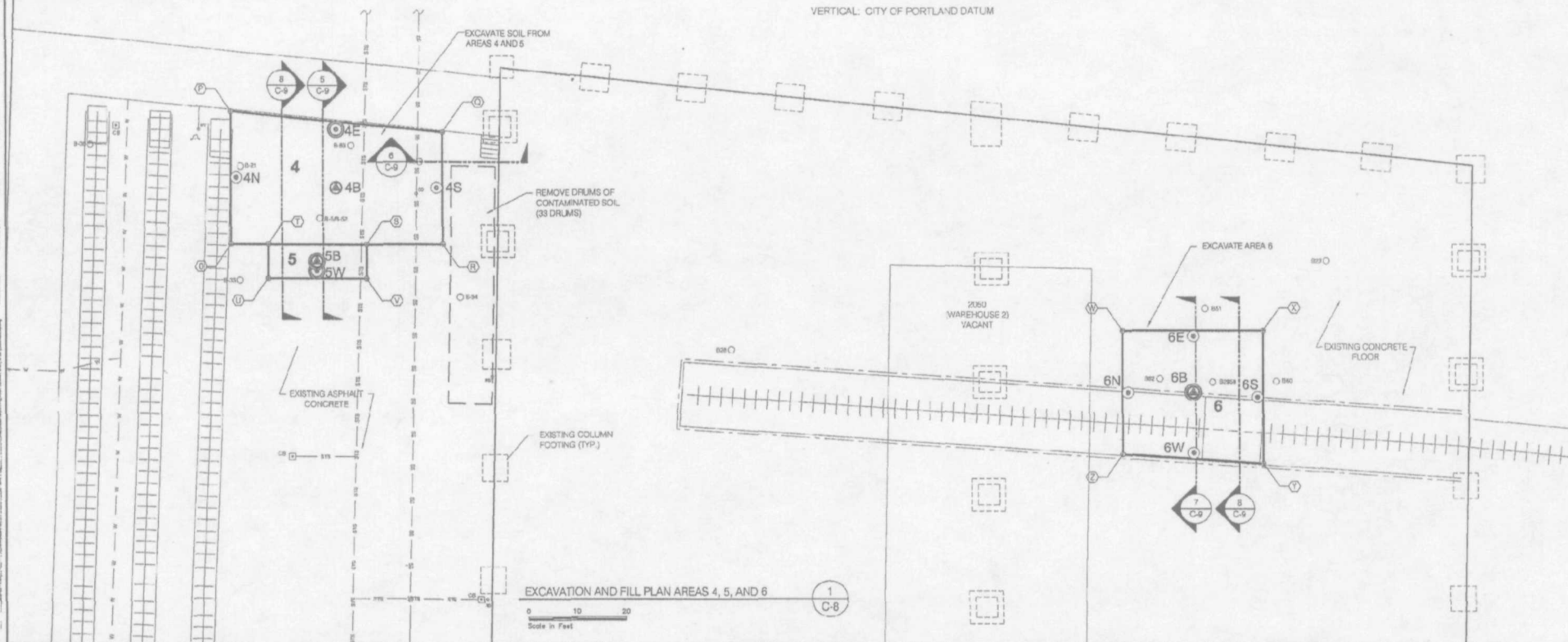
- ① Confirmation Sample (0-3 Ft. Depth Range)
- ② Confirmation Sample (3-10 Ft. Depth Range)
- ③ Confirmation Sample (Bottom Sample)
- ④ Confirmation Sample for PAH Analysis

## EXCAVATION COORDINATES

| POINT | NORTHING | EASTING   | EXISTING ELEV. | BOTTOM EXCAVATION ELEV. |
|-------|----------|-----------|----------------|-------------------------|
| O     | 60012.7  | 7641630.6 | 31.3           | 26.03                   |
| P     | 600031.6 | 7641648.1 | 31.4           | 25.87                   |
| Q     | 600000.1 | 7641679.0 | 32.1           | 25.57                   |
| R     | 609982.4 | 7641664.3 | 32.0           | 25.19                   |
| S     | 609992.6 | 7641652.2 | 31.6           | 26.59/28.04             |
| T     | 600005.7 | 7641630.6 | 31.2           | 26.13/27.68             |
| U     | 600003.3 | 7641632.0 | 31.2           | 27.87                   |
| V     | 609987.1 | 7641647.7 | 31.6           | 26.18                   |
| W     | 609878.6 | 7641760.2 | 35.4           | 26.26                   |
| X     | 609860.0 | 7641782.4 | 35.4           | 26.25                   |
| Y     | 609833.9 | 7641764.7 | 31.7           | Not Available           |
| Z     | 609859.1 | 7641743.7 | 31.7           | 26.70                   |

HORIZONTAL: OREGON STATE PLANE, NAD 83

VERTICAL: CITY OF PORTLAND DATUM



EXCAVATION AND FILL PLAN AREAS 4, 5, AND 6

Scale in Feet

| NO. | DATE | BY | REVISIONS | DRG | APPRO | NO. | DATE | BY | REVISIONS | DRG | APPRO |
|-----|------|----|-----------|-----|-------|-----|------|----|-----------|-----|-------|
|     |      |    |           |     |       |     |      |    |           |     |       |



PORT OF PORTLAND  
PORTLAND, OREGON

**HART-CROWSER**

PROJECT NO.

PROJECT NAME

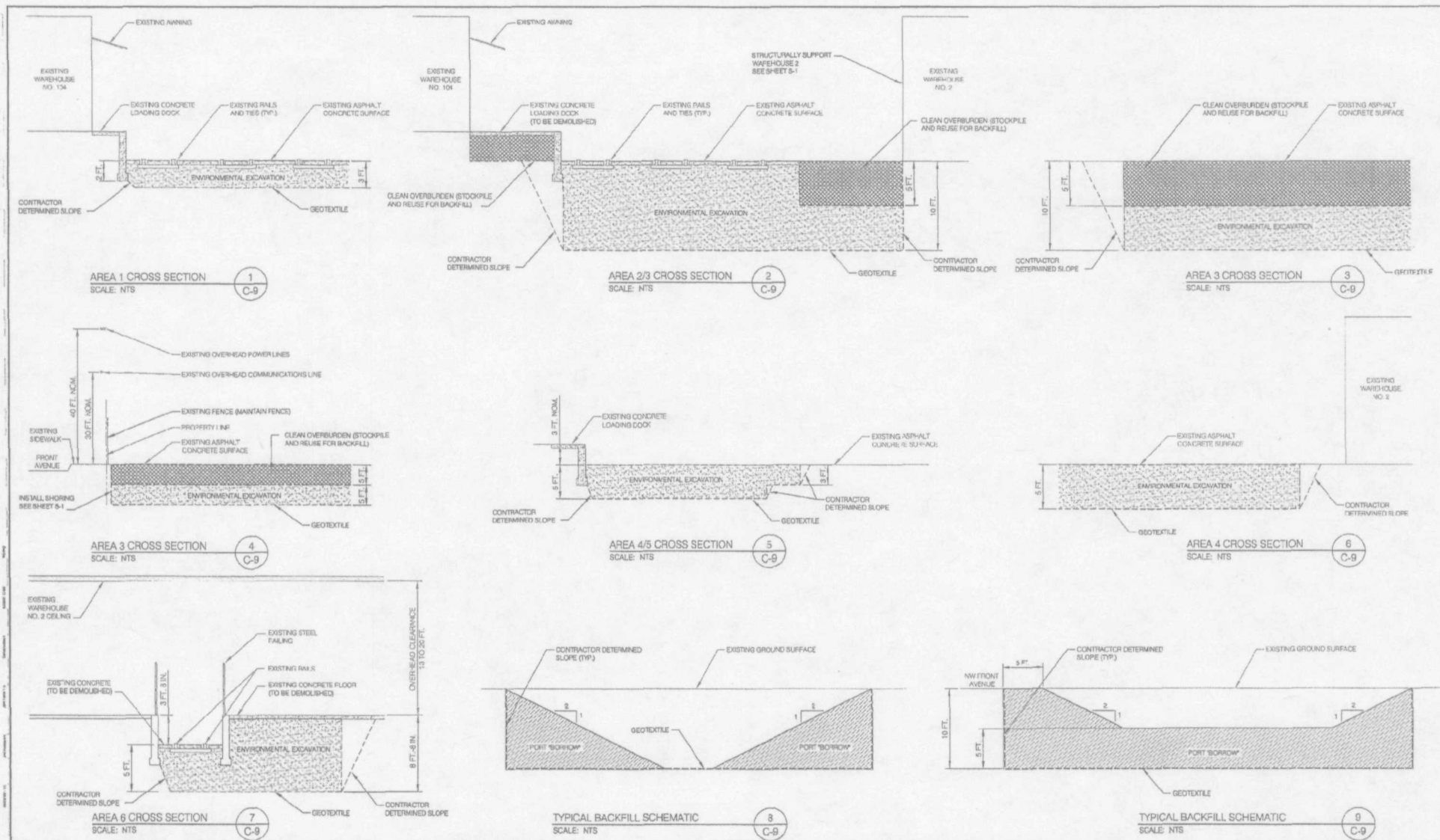
DESIGNED BY: H. CLOUGH  
DRAWN BY: J. BICEBY  
CHECKED BY: H. CLOUGH  
DATE: OCT 2000  
SCALE: 1"=10'

TERMINAL 1 - SOUTH

REMEDIAL ACTION - PARCEL 2 (AREA B)  
EXCAVATION AND FILL PLAN - AREAS 4, 5, AND 6

SUBMITTED BY: WALTER HAYNES  
TYPE: CD  
DRAWING NO.: T1  
2002-500  
8/11 (C-8)





| NO. | DATE | BY | REVISIONS | CD | APPROV | NO. | DATE | BY | REVISIONS | CD | APPROV |
|-----|------|----|-----------|----|--------|-----|------|----|-----------|----|--------|
|     |      |    |           |    |        |     |      |    |           |    |        |
|     |      |    |           |    |        |     |      |    |           |    |        |
|     |      |    |           |    |        |     |      |    |           |    |        |
|     |      |    |           |    |        |     |      |    |           |    |        |

PORT OF PORTLAND  
PORTLAND, OREGON

**HART CROWSER**

DESIGNED BY: H. CLOUGH  
DRAWN BY: J. BRIDY  
CHECKED BY: NTS  
DATE: OCT 2002  
SCALE: AS NOTED

TERMINAL 1 - SOUTH  
REMEDIAL ACTION - PARCEL 2 (AREA B)  
EXCAVATION DETAILS

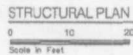
SUBMITTED BY: WALTER HAYNES  
TYPE: CD  
SPRINTING NO: T1  
2002-500  
9/11 (C-9)

1. FOOTING LOCATION AND SIZE HAS BEEN INTERPRETED FROM RECORD DRAWINGS. CONTRACTOR IS TO EXPOSE FOOTINGS TO VERIFY THEIR LOCATION AND SIZE PRIOR TO INSTALLING UNDERPINNING AND SHORING PLIES.

2. SHORING AND UNDERPINNING SHALL BE IN PLACE PRIOR TO EXCAVATING MORE THAN SIX INCHES BELOW SUBGRADE ELEVATIONS OF EXISTING FOOTINGS.

3. UNDERPINNING SHALL REMAIN IN PLACE UNTIL EXCAVATION BACKFILL IS COMPLETE TO WITHIN SIX INCHES FOUNDATION SUBGRADE ELEVATIONS. PRIOR TO DISCONNECTING UNDERPINNING PLIES, CONTRACTOR SHALL BACKFILL ANY VOIDS UNDER THE EXISTING FOOTINGS WITH CEMENTITIOUS GROUT.

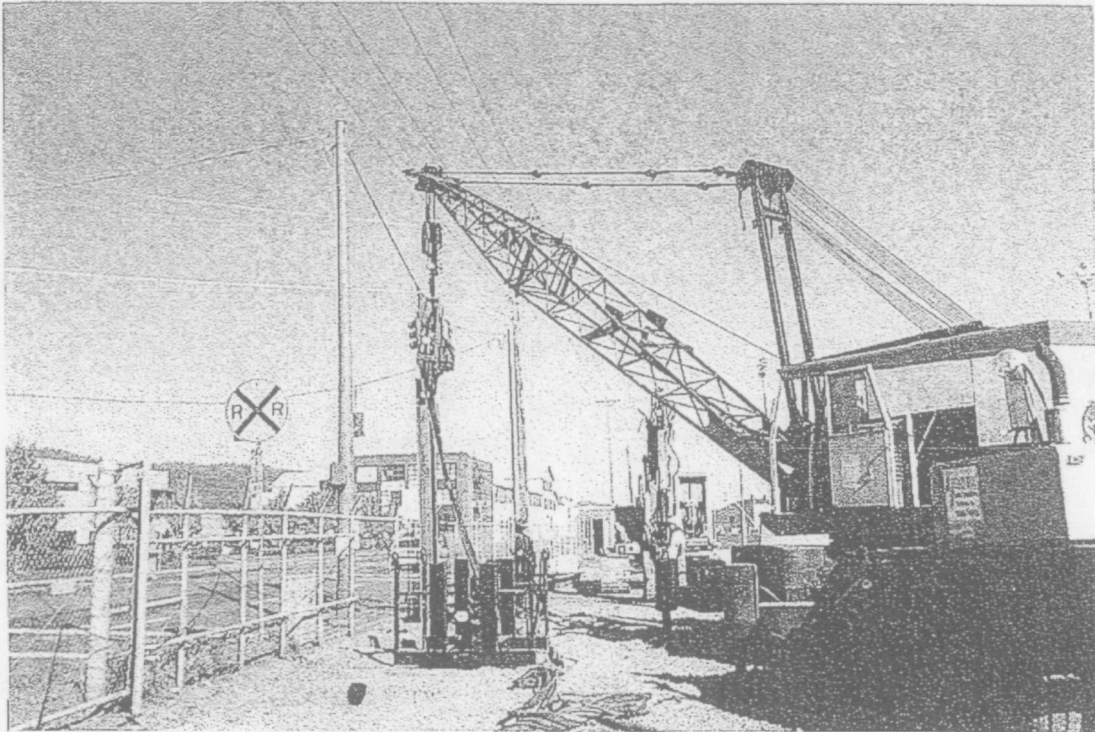
4. CONTRACTOR IS TO REMOVE AND SALVAGE VERTICAL PILES, STEEL PLATES, AND ANY OTHER SHORING AND UNDERPINNING ELEMENTS THAT CAN BE REASONABLY REMOVED WITHOUT DAMAGING THE BUILDING.

[illegible]





**APPENDIX A  
PHOTOGRAPHS**

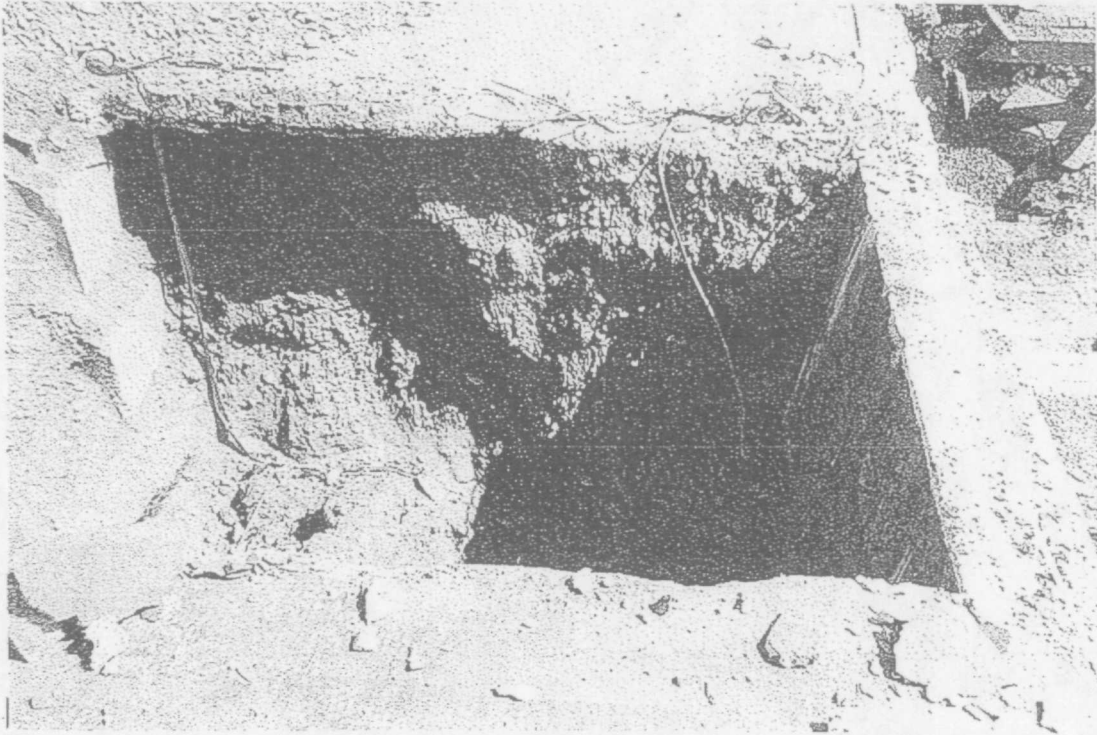


Photograph 1 - Shoring piles (typical of 9) vibrated 25 feet below ground surface along Front Avenue.

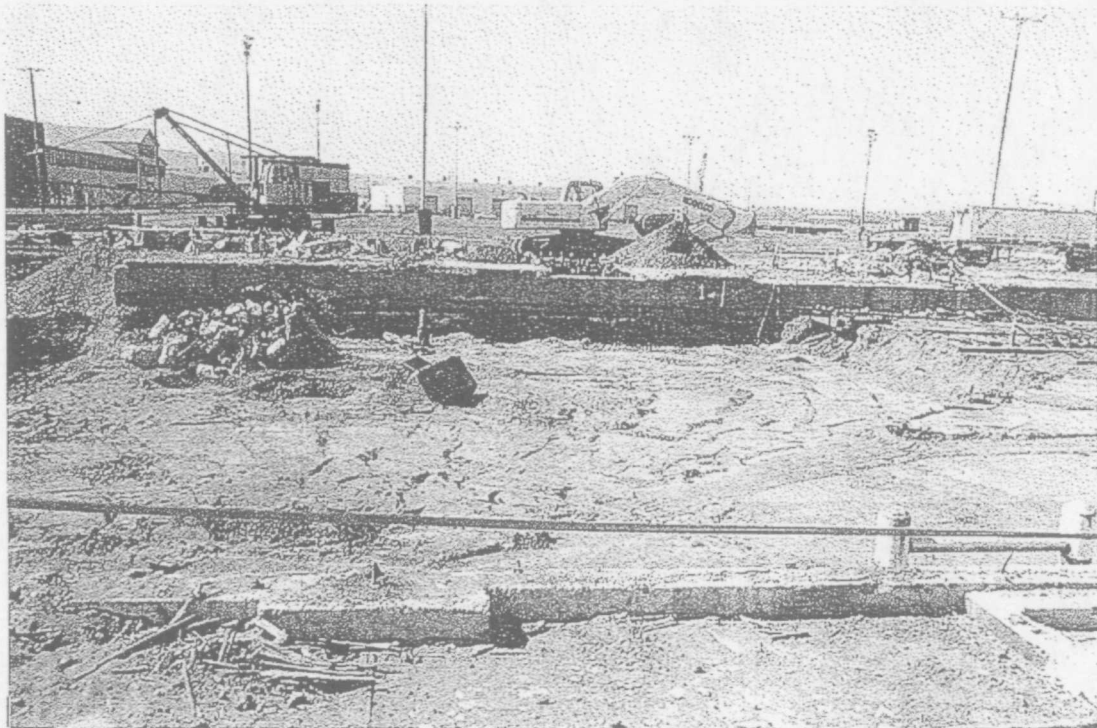


Photograph 2 - Areas 2 and 3 excavation, shoring along Front Avenue in the background (looking west).

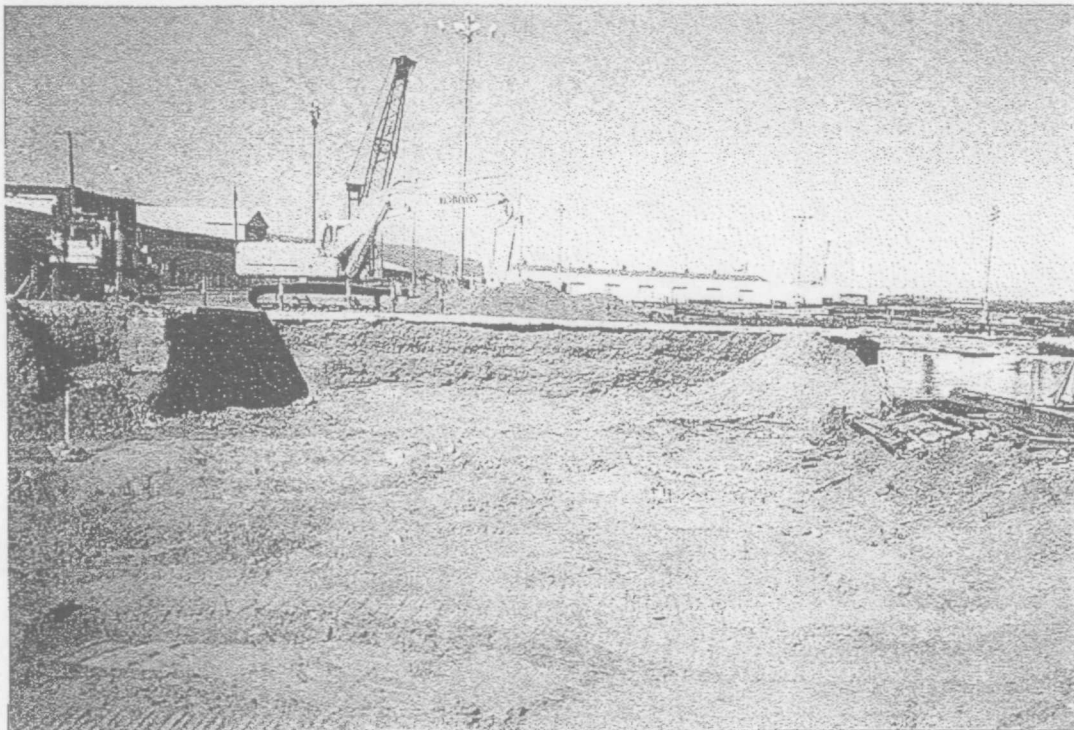




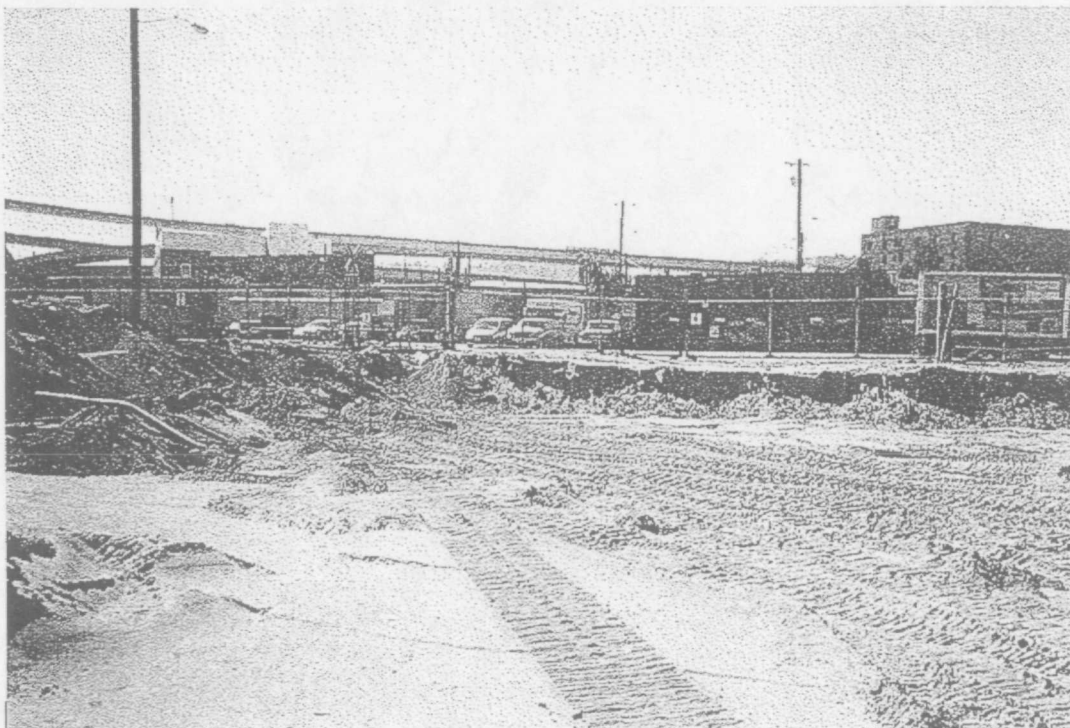
Photograph 3 - Test pit exploration adjacent to Area 1 (excavation depth 6 feet below ground surface).



Photograph 4 - Perimeter over-excavation at Area 1 (test pit in background, looking northwest).



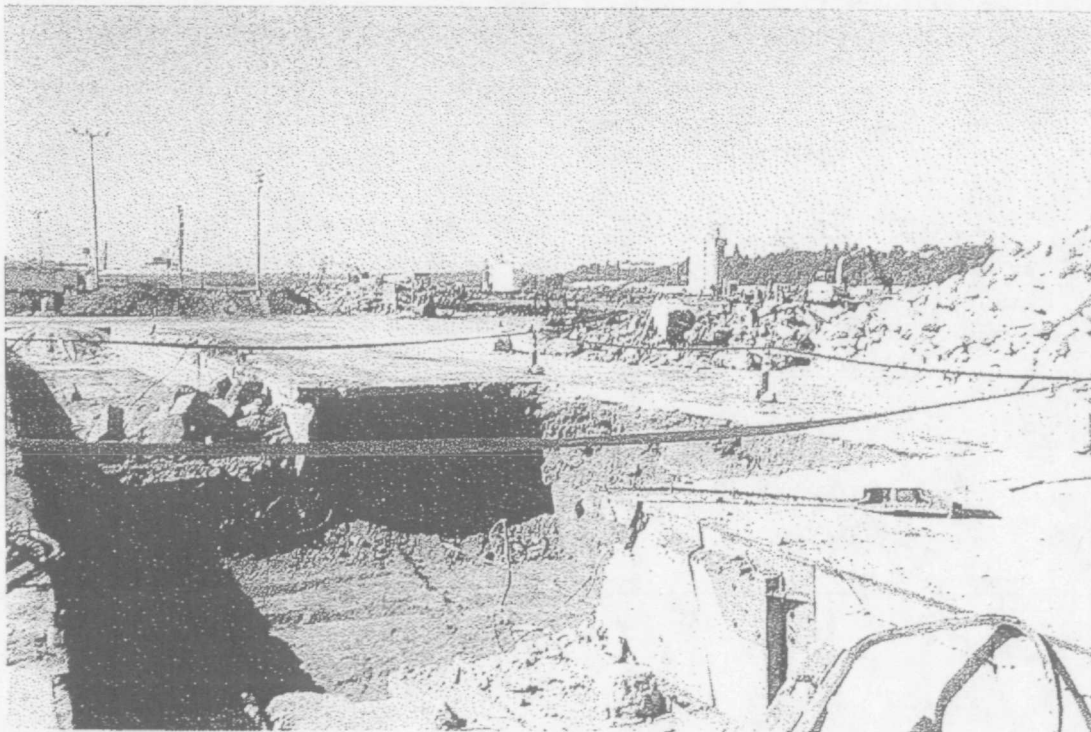
Photograph 5 - Over-excavation at Area 1 (Warehouse 104, looking northwest).



Photograph 6 - Areas 4 and 5 excavation (looking east).



Photograph 7 - Area 6 excavation (looking northwest).



Photograph 8 - Over-excavation at Area 3.





Photograph 9 - Typical backing. Note demarcation layer (Geotextile).



Photograph 10 - Backfilling/grading/compacting imported dredge sand (looking west).

**APPENDIX B  
FIELD PROCEDURES**



## **APPENDIX B FIELD PROCEDURES**

This appendix presents the field and sampling procedures that Hart Crowser used to complete this project.

### **1.0 FIELD AND SAMPLING PROCEDURES**

The locations and basis for soil sampling are discussed in the Removal Action Work Plan (Hart Crowser, 2002c). Soil samples collected from the excavation bottom and sidewalls were used to verify the removal action cleanup objectives had been attained, document remaining soil contaminant concentrations, and assist in future risk-based calculations. Soil samples collected from the stockpile (i.e., stockpile generated from excavation of overburden soil [ground surface to 5 feet below ground surface] from Area 3) were used to determine suitability as on site fill and for waste designation purposes. Soil samples collected from test pit explorations were completed to determine the extent of additional excavation required adjacent to Area 1. The field and sampling procedures include the following:

- Test pit explorations;
- Collection of soil samples;
- Field screening;
- Sample management (e.g., containers, storage, and shipment); and
- Decontamination procedures.

#### **1.1 Test Pit Explorations**

Test pit explorations were completed adjacent to Area 1 (northwest corner, beneath Warehouse 104 concrete surface) to aid in determination of the extent of additional excavation required. The test pit exploration locations are shown on Drawing C-7. A Hart Crowser representative was present to observe and document the excavation activities. We maintained detailed field logs for each test pit.

**Locations and Methodology.** Prior to test pit explorations, portions of the concrete surface of Warehouse 104 were removed to facilitate the explorations. Six test pits explorations (TP-1 through TP-6) were completed. Test pits were completed to a depth of 6 feet below ground surface (bgs). The bottom elevation of the test pit was approximately the same elevation as the Area 1

excavation floor. Based on field observations, samples were collected as described in Section 1.2.

## **1.2 Soil Sample Collection**

Soil samples were collected from the excavation bottom and sidewalls, stockpile, and test pits. Field observations were maintained in our field log notes. These observations included the following:

- Sampling location;
- Soil characteristics (odor, sheen, presence of wood or other debris, staining, color, grain size); and
- Stockpile volumes.

**Excavation Bottom and Sidewalls.** Samples were collected from the excavation bottom and sidewalls to provide representative coverage (see Drawings C-7 and C-8 for sample locations). If the excavation was sloped so it could be safely entered, discrete soil samples were collected with a stainless steel spoon directly from the excavation sidewall or bottom. Prior to obtaining the sample, surficial soil from the excavation wall was removed with a shovel or stainless steel spoon to expose fresh soil. If the excavation was greater than 4 feet, the sample was collected from the excavator bucket after obtaining a scoop from the location designated by the Hart Crowser representative. The material was placed in laboratory-supplied sample jars using the stainless steel spoon. Two jars were filled from the bowl. Soil samples were screened in the field for the presence of volatile organic compounds (VOCs) using a photoionization detector (PID) and for petroleum hydrocarbons (i.e., oils) using a sheen test. See Section 1.3 for a description of field screening methods.

**Stockpile Collection.** Soil samples were collected from the stockpile generated from excavation of clean overburden soil from Area 3. One composite sample was collected for each 200 cubic yards (or portion thereof) of soil in the stockpile. Composite samples were collected by obtaining equal aliquots from five locations in the stockpile. The aliquots were placed in a stainless steel bowl, mixed thoroughly, and placed in a laboratory supplied sample jar using the stainless steel spoon. Two jars were filled. Soil samples were screened in the field for the presence of VOCs using a PID and for petroleum hydrocarbons (i.e., oils) using a sheen test. See Section 1.3 for a description of field screening methods.

**Test Pit Collection.** Test pit excavation were completed to depths greater than 4 feet, so the sample was collected from the excavator bucket after obtaining a scoop from the location designated by the Hart Crowser representative. The

material was placed in laboratory-supplied sample jars using the stainless steel spoon. Two jars were filled. Soil samples were screened in the field for the presence of VOCs using a PID and for petroleum hydrocarbons (i.e., oils) using a sheen test. See Section 1.3 for a description of field screening methods.

**Sample Locations.** Sample locations and explorations were located in the field by measuring distances relative to permanent site landmarks using a measuring tape. At least two fixed, known points were used as reference for each sampling/exploration location.

### **1.3 Field Screening**

**Headspace Measurements.** PID headspace measurements were made on soil samples to assess the relative presence of VOCs. The PID only provides a qualitative indication of the presence of VOCs and is not compound or concentration-specific. Samples were placed in glass jars (filled less than half full), covered with aluminum foil prior to capping, and allowed to warm to ambient temperature. PID measurements were made within one hour of collection by pushing a 10.2eV probe through the foil cover. Measurements were recorded in field notes.

**Sheen Tests.** Sheen tests were conducted on soil samples to assess if petroleum hydrocarbons (i.e., oil) were present. A small portion of a sample was placed in a wide-mouth, glass jar filled with water. The presence of petroleum hydrocarbons is indicated if a sheen is produced on the water surface in the jar. Observations were recorded in our field notes.

### **1.4 Sample Management**

Clean sample containers were provided by the analytical laboratory ready for sample collection. A sample label was affixed to each sample container and was marked with a unique sample number, date of collection, project number, and sampler's initials. Samples were placed in a cooler with ice until transported to our office or the laboratory for refrigeration. Chain of custody was maintained and documented at all times.

### **1.5 Decontamination**

To prevent sample contamination, all sampling equipment (stainless steel spoons and bowls) was cleaned using an initial freshwater rinse, successive washes withalconox solution, and a final rinse with deionized water prior to, and between, collection activities. To avoid cross-contamination of samples, fresh gloves were worn for each new sampling location. Decontamination water was applied to soil designated for disposal.

**APPENDIX C  
CITY PERMITS AND  
COMPACTION RESULTS**



CITY OF  
**PORTLAND, OREGON**  
OFFICE OF PLANNING AND DEVELOPMENT REVIEW  
1900 SW 4<sup>th</sup> Ave, Suite 5000  
Portland, OR 97201



**SITE DEVELOPMENT PERMIT**

02-117802-000-00-SD

Site Address: 2050 NW Front Ave  
PORT OF PORTLAND TERMINAL 1 SOUTH

Issued: 7/10/02

|  |         |            |             |
|--|---------|------------|-------------|
| <b>PROJECT INFORMATION</b>   |         | Occ. Group | Const. Type |
| Existing Commercial Site   | Grading |            |             |
| Project Description: REMEDIAL ACTION - REMOVE APPROX 3,000 CU YDS OF CONTAMINATED SOIL AND REPLACE WITH CLEAN SOIL |         |            |             |

|                       |                                |                      |
|-----------------------|--------------------------------|----------------------|
| <b>APPLICANT</b>      | GROUP MACKENZIE "Suzie Gorman" | Phone (503) 224-9560 |
| <b>PROPERTY OWNER</b> | PORT OF PORTLAND               | Phone                |
| <b>CONTRACTOR</b>     | DONALD EUDALY INC              | Phone                |

| Project Details      |     | Project Details                   |        |
|----------------------|-----|-----------------------------------|--------|
| 100-Year Floodplain? | Yes | Ground Disturbance Area (Sq. Ft.) | 1      |
| Ground Disturbance?  | Yes | Lot Area (Sq. Ft.)                | 879085 |
| Sl-Soils             | Yes |                                   |        |

**FLOOD PLAIN 100 YEAR**

**BEFORE YOU DIG** ATTENTION: Oregon law requires you to follow rules adopted by the Oregon Utility Notification Center. Those rules are set forth in ORS 952.001-031.0 and OAR 952.001-0090. You may obtain copies of the rules by calling the center. (Note: the telephone number for Oregon Utility Notification Center is 1-800-332-3443)

|                     |                     |
|---------------------|---------------------|
| <b>CITY CONTACT</b> | Phone:              |
| E-Mail:             | Fax: (503) 823-4172 |

|   |   |                |
|---|---|----------------|
| <b>INSPECTION REQUEST PHONE NUMBERS</b> | Building/Trade Inspections - Call Before 6:00 AM: | (503) 823-7000 |
| TDD: (503) 823-6868                     |   |                |
| <b>IVR Inspection Request Number:</b>   | 2229763   |                |

POPT1S602743



16

CITY OF PORTLAND  
OFFICE OF PLANNING AND DEVELOPMENT REVIEW  
1900 SW Fourth Avenue, Suite 5000  
Portland, OR 97201

P524

**Land Use Review Notice Enclosed**  
**Case # 02-116179 GWEF**

1N1E28DB .00200  
PORT OF PORTLAND (DOCK COMM>  
PO BOX 3529  
PORTLAND OR  
97208

POPT1S602744



**Office of Planning  
and  
Development Review**  
Land Use Review Division

1900 SW Fourth Ave. Suite 5000  
Portland, Oregon 97201  
Telephone: 503-823-7300  
TDD: 503-823-6868  
FAX: 503-823-5630  
[www.opdr.ci.portland.or.us](http://www.opdr.ci.portland.or.us)

**Date:** May 23, 2002  
**To:** Interested Person  
**From:** Eric Engstrom, Land Use Review  
503-823-0977

**NOTICE OF A TYPE II DECISION ON A PROPOSAL IN  
YOUR NEIGHBORHOOD**

The Office of Planning and Development Review has approved a proposal in your neighborhood. The reasons for the decision are included in this notice. If you disagree with the decision, you can appeal it and request a public hearing. Information on how to appeal this decision is listed at the end of this notice.

**CASE FILE NUMBER: LU 02-116179 GW EF**

**GENERAL INFORMATION**

**Applicant:** Jane McFarland,  
Port Of Portland  
121 NW Everett  
Portland, OR 97208 Phone: 503-944-7049

**Additional Owner:** Tim Ralston,  
Riverscape, Llc  
931 SW King Avenue  
Portland, OR 97201

**Consultants:** Shawn Wood,  
Group Mackenzie  
0690 SW Bancroft  
Portland, OR 97201

Herb Clough,  
Hart Crowser  
Five Centerpoint Dr., Ste 240  
Lake Oswego, OR 97035

**Site Address:** 2100 WI/NW Front Ave

**Legal Description:** RIVER BLOCK, TL 301 LOTS 14 - 16, WATSONS ADD;  
RIVER BLOCK, TL 302 LOTS 16 - 20, WATSONS ADD;  
BLOCK 2, TL 201 LOT 21-24, DOSCHERS ADD

**Tax Account No.:** R883804050, R883804060, R215000030  
**State ID No.:** 1N1E28D 00301, 1N1E28D 00302, 1N1E28DB 00201  
**Quarter Section:** 2828

**Neighborhoods:** Northwest District Association, contact John Bradley at (503) 227-7484

**Within 1000'** Pearl District, contact Steve Pinger at (503) 827-7050

POPT1S602745

Overlook, contact Jerry Lindsey at 503-281-5765..  
Eliot, contact Pauline Bradford at (503) 281-6635.

**Business Districts:** Northwest Industrial NA, contact Kent Studebaker at (503) 227-6638

**Within 1000'** Nob Hill Business Association, Libby Hartung at (503) 226-0363  
Pearl District Business Association, Todd Breslau at (503) 227-3400  
Lower Albina Council, Kurt Widmer at (503) 331-7241.

**District Coalition:** Neighbors West/Northwest (W/NW), contact David Alred at (503) 223-3331

**Plan District:** Central City Plan District

**Zoning:** RX dg (High density multi-dwelling zone with Design and River General Greenway overlay zones)

Central City Plan District, River District Subdistrict  
Recreational Trail Designation

**Case Type:** GW EF (Greenway Review with concurrent Excavation and Fill Review)

**Procedure:** Type II, an administrative decision with appeal to the Hearings Officer.

**Proposal:**

There are a number of areas of soil contamination on this site. Environmental investigations have been completed, and cleanup activities are now proposed for one part of the site ("Area B"). Environmental cleanup activities would include excavation, (removal of contaminated soils), shoring up excavated areas, and hauling contaminated materials to an appropriate disposal site. The original public notice mailed for this case stated that no new fill will be brought to the site. Since then the applicant has submitted additional information clarifying that about 2,700 cubic yards of clean fill will be brought onto the site to backfill the excavated areas. No other new development is proposed with this application.

Two recent Land Use Reviews are associated with this site. LUR 01-00618 SU GW approved a tentative plan for a 12-lot subdivision on the site. LUR 01-00682 GW approved demolition of the existing wharf on the river-facing portion of the site. Warehouse demolition is also proposed under a separate permit (02-107400-000-00-CO). The proposed cleanup work would precede those activities.

Numbers have been printed on the attached project site plan and erosion control plan to indicate the proposed areas of work.

- Area 1 – Excavate 3 feet to remove 426 cubic yards of contaminated soils;
- Area 2 – Excavate 10 feet to remove 932 cubic yards of contaminated soils;
- Area 3 – Excavate 10 feet to remove 938 cubic yards of contaminated soils;
- Area 4 – Excavate 5 feet to remove 204 cubic yards of contaminated soils;
- Area 5 – Excavate 3 feet to remove 16 cubic yards of contaminated soils; and
- Area 6 – Excavate 5 to 8 feet to remove 185 cubic yards of contaminated soils.

The attached erosion control plan also shows proposed contractor staging areas, and proposed entry routes for trucks. Work will occur during normal business hours.

**Relevant Approval Criteria:**

In order to be approved, this proposal must comply with the approval criteria of Title 33. The approval relevant criteria are:



- 33.440.350 (Greenway Approval Criteria, including the Willamette Greenway Design Guidelines)
- 33.830.050 (Approval Criteria for Excavation and Fill Review)

This application was determined to be complete on April 29<sup>th</sup>, 2002.

## ANALYSIS

**Site and Vicinity:** The site abuts the Willamette River immediately downstream of the Fremont Bridge (Interstate 405). The property is 300 to 450 feet deep, and about 1,850 feet long. With the exception of the riverbank, the site is relatively flat, with elevations ranging from 29 to 35 feet above sea level (NGVD). The 100-year floodplain elevation at this point in the Willamette River is 28.3 feet above sea level (NGVD). The ordinary high water line is approximately 17 feet above sea level (NGVD).

There are a variety of existing port-oriented improvements on the upland portion of the site, including several railroad spurs, several large warehouses, and a water tower. Most of the site is paved. There is a large wharf along a portion of the river-facing edge of the site, and a concrete pier extending into the river from the northern corner of the site. In the cove northwest of the site is a floating dock used by the Sheriff's office. There are several large-diameter sewer and stormwater outfall pipes that cross the site in easements.

Immediately southeast of the site is the Fremont Bridge. Traffic lanes of the bridge are elevated about 125 to 175 feet above the ground surface. Beyond the bridge is an office complex with a parking lot. A short segment of completed greenway trail ends at the bridge. To the northwest of the site is another Port of Portland terminal, with a large wharf and several warehouses. Beyond the Port of Portland facilities, the neighborhood to the west of this site is an Industrial Sanctuary (zoned IH). Across the river to the northeast is the Overlook Bluff and the Albina Yards – a large regionally-important railroad switching yard. To the south of the site is an area of industrial warehouses, offices, and industrial buildings, with a more traditional 200-foot by 200-foot block pattern. To the southeast of the site is a large area where a former rail yard is being redeveloped for mixed use and high density residential uses (the River District).

**Zoning:** The site is zoned RXdg – High Density Residential, with a Design and Greenway General overlay. The site is within the River District subarea of the Central City Plan District. There is also a public recreational trail designation on the site.

The RX Zone is a high-density multi-dwelling zone. Allowed housing developments are characterized by a very high percentage of building coverage. The major types of new housing development will be medium and high rise apartments and condominiums, often with allowed retail, institutional, or other service oriented uses. Generally, RX zones will be located near the center of the city where transit is readily available and where commercial and employment opportunities are nearby. RX zones will usually be applied in combination with the Central City Plan District.

The Design Overlay Zone promotes the conservation, enhancement, and continued vitality of areas of the City with special scenic, architectural, or cultural value. This is achieved through the creation of design districts and applying the Design Overlay Zone as part of community planning projects, development of design guidelines for each district, and by requiring design review or compliance with the Community Design Standards. In addition, Design Review or compliance with the Community Design Standards ensures that certain types of infill development will be compatible with the neighborhood and enhance the area.

The Greenway regulations are intended to:

- Protect, conserve, enhance, and maintain the natural, scenic, historical, economic, and recreational qualities of lands along Portland's rivers;

- Establish criteria, standards, and procedures for the development of land, change of uses, and the intensification of uses within the greenway;
- Increase public access to and along the Willamette River for the purpose of increasing recreational opportunities, providing emergency vehicle access, assisting in flood protection and control, providing connections to other transportation systems, and helping to create a pleasant, aesthetically pleasing urban environment; and
- Implement the City's Willamette Greenway responsibilities as required by ORS 390.310 to 390.368.

The Public Recreational Trail requirements are intended to:

- Increase recreational opportunities within the City of Portland and connect these recreational opportunities with a regional recreational trail system;
- Increase public access along the Willamette River and to other significant natural resource areas;
- Provide emergency vehicle access;
- Provide access to increase public safety;
- Assist in flood protection and control;
- Assist in shoreline anchoring;
- Support alternative modes of transportation;
- Provide connections to other transportation systems;
- Implement the City's Comprehensive Plan policies regarding public recreational trails;
- Help create a pleasant, aesthetically pleasing urban environment; and
- Provide consistent standards for trail development.

The Central City Plan District implements the Central City Plan and other plans applicable to the Central City area. These other plans include the Downtown Plan, the River District Plan, the University District Plan, and the Downtown Parking and Circulation Policy. The Central City Plan District implements portions of these plans by adding code provisions which address special circumstances existing in the Central City area.

**Land Use History:** City records indicate that prior land use reviews include the following:

01-00682 GW

A greenway review approved demolition of the large wharf located along the river-facing edge of the site. Demolition activities are expected to begin during the summer of 2002.

01-00618 SU GW

A subdivision proposal with concurrent greenway review was submitted in September of 2001. That subdivision would divide the site into 12 lots, with several new public streets. The preliminary subdivision approval was granted by the Hearings Officer on January 4<sup>th</sup>, 2002. An appeal was filed, but City Council upheld the decision in a public hearing on February 14<sup>th</sup>, 2002.

01-00521 GW

A 2001 Greenway Review approved construction of the West Side Combined Sewer Overflow (CSO) tunnel and pipeline project. The CSO Pipe is a 14-foot diameter below-grade tunnel connecting from SW Clay Street along Front Avenue to the Swan Island Pump Station. The tunnel is designed to capture sewage overflows from Portland combined sewers and direct that overflow to treatment facilities. The project is mandated by The Oregon Department of Environmental Quality (DEQ). The CSO tunnel will be located under NW Front Avenue, and impacts the site in two places:

- About 150 feet northwest of NW 17<sup>th</sup> Avenue intersection OPDR-approved plans show an access shaft (manhole). All construction related to this shaft will be within the right-of-way.
- Just northwest of the Fremont Bridge will be the Fremont Conduit Diversion, a vertical drop structure, and a series of connected pipes and manholes.

There are no conditions of approval from the CSO project review that would impact the present proposal.

99-00995 GW and 01-00111 AD

Two recent land use reviews were related to a proposal to locate kitchen support facilities for a boat moorage located on another portion of the same site. These cases were withdrawn.

98-01041 DZ

A 1998 Design Review approved partial demolition of several warehouses on the site. Design Review was required because the demolitions were only partial. The new exterior walls on several of the buildings were required to be finished to match existing exterior surfaces. These buildings will be completely removed with redevelopment of this site.

D 37-81

An additional 3.5 feet of right-of-way was dedicated to NW Front Avenue in 1981. There were no conditions associated with this approval.

CU 100-75 and CU 75-71

Two land use reviews for excavation and fill were approved within the site in 1971 and 1975. There are no other records or specific plans related to these cases on file with the City.

ZC 4684

There is a record of a Zone Change review covering a large area of West Portland, including this site. No additional documentation of this case is available.

**Agency Review:** The following Bureaus have responded with no issues or concerns:

- Bureau of Transportation Engineering
- Fire Bureau
- Site Development Section of OPDR

The Bureau of Environmental Services responded with several comments.

- BES recommends that the applicant review the Portland Stormwater Management Manual prior to submitting permit applications.
- Collected groundwater containing pollutants must be properly disposed of.
- Construction dewatering activities will require a Batch Discharge Authorization if a City Sewer is used for disposal.
- DEQ permitting and/or review may be required if pollutants are found, and levels of contamination appear to conflict with the City's local stormwater discharge regulations.

Please see Exhibit E-1 for additional details.

**Neighborhood Review:** A "Notice of Proposal in Your Neighborhood" was mailed on May 1, 2002. No written responses have been received from either the Neighborhood Association or notified property owners in response to the proposal.

## **ZONING CODE APPROVAL CRITERIA**

### **Greenway Review**

#### **33.440.310 Where Greenway Review Applies**

Unless exempted in 33.440.320 below, the following items are subject to greenway review:

- A. New development;
- B. Exterior alterations to development, including the removal of trees and shrubs and the application of herbicides;

- C. A change of use or development within or riverward of the greenway setback, where the use or development is no longer river-dependent or river-related;
- D. Changes to the land and structures in the water, including excavations and fills, bridges, and docks; and
- E. The dedication or extension of rights-of-way and any new development or improvements in rights-of-way when within the River Natural zone or within or riverward of the greenway setback.

**Findings:** Excavation and fill activities are considered exterior alterations, and changes to the land (identified under paragraphs B and E above). Therefore, Greenway Review is required.

### **33.440.320 Exemptions from Greenway Review**

Greenway review is not required for any of the situations listed below. The situations listed below are still subject to the Greenway development standards. The situations are:

- A. As illustrated in Figure 440-2, alterations to development in the River Industrial zone that are outside of the areas listed below:
  - 1. The greenway setback;
  - 2. Riverward of the greenway setback;
  - 3. Within 50 feet landward of the greenway setback; or
  - 4. Within 50 feet of River Natural zoned land;
- B. Alterations to development landward of the greenway setback when not in or within 50 feet of River Natural zoned land, that either do not require a building permit or are valued at less than \$25,000;
- C. Changes to the interior of a building where there are no exterior alterations;
- D. Development of or changes to the greenway trail or access paths provided that all development standards including the standards of 33.272, Recreational Trails, are met. Development of or changes in a viewpoint or view corridor, as indicated on Map 440-1, will require greenway review;
- E. Activities allowed by the base zone which are usual and necessary for the use and enjoyment of an existing house, including the modification of existing accessory structures or facilities, and the construction of driveways;
- F. Excavations and fills under 50 cubic yards;
- G. The normal maintenance and repair necessary for an existing development;
- H. Dredging, channel maintenance, and the removal of gravel from rivers;
- I. Emergency procedures necessary for the safety or protection of property;
- J. The placement of up to 4 single piles, or 2 multiple-pile dolphins for each 100 feet of shoreline for an existing river-dependent or river-related use;
- K. Signs; and
- L. Removal of vegetation identified as nuisance plants on the Portland Plant List.

**Findings:** The site is not within the River Industrial zone. Excavation and fill activities require Site Development permits, and the proposed work is valued at more than \$25,000. The proposed activity is not an activity that is "usual or necessary for the enjoyment of an existing home". The proposed activity is not considered a change to the interior of a building. The proposed excavation/fill is over 50 cubic yards. The proposed work is not considered dredging, normal maintenance and repair, or an emergency procedure. New piles will not be placed within the river with this proposal. No signs are proposed. The proposed demolition does not involve removal of nuisance vegetation.

The proposed demolition does not fit within any of the above-described exemptions. Therefore, Greenway Review is required.

### **33.440.350 Greenway Approval Criteria**

- A. Generally. The approval criteria for a greenway review have been divided by location or situation. The divisions are not exclusive; a proposal must comply with all of the approval criteria which apply to the site. Requests for a greenway review will be approved if the review body finds that the applicant has shown that all of the appropriate approval criteria are met.

**Findings:** Each criterion is discussed below.

- B. For all greenway reviews. The Willamette Greenway Design Guidelines must be met for all greenway reviews.**

**Findings:** There are 8 design guidelines, as follows:

- A - Relationship of Structures to the Greenway Setback Area;
- B - Public Access;
- C - Natural Riverbank and Riparian Habitat;
- D - Riverbank Stabilization;
- E - Landscape Treatments;
- F - Alignment of the Greenway Trail;
- G - Viewpoints; and
- H - View Corridors.

Each of these guidelines is discussed below.

**Issue A. Relationship of Structures to the Greenway Setback Area:**

This issue *"applies to all but river-dependent and river-related industrial use applications for Greenway Approval, when the Greenway Trail is shown on the property in the Willamette Greenway Plan."* These guidelines call for complementary design and orientation of structures so that the greenway setback area is enhanced.

**Findings:** This application is for the removal of contaminated soil from the site, and replacement of that soil with clean fill. No new structures are proposed with this application. Therefore, this guideline is not applicable.

**Issue B. Public Access:** This issue *"applies to all but river-dependent and river-related industrial use applications for Greenway Approval, when the Greenway Trail is shown on the property in the Willamette Greenway Plan."* These guidelines call for integration of the Greenway Trail into new development, as well as the provision of features such as view points, plazas, or view corridors.

**Findings:** This application is for the removal of contaminated soil from the site, and replacement of that soil with clean fill. No new development or pedestrian circulation systems are proposed or required. This site is subject to a separate subdivision application (LUR 01-00618 SU GW) that sets in motion the framework for future development of the site. Therefore, this guideline is not applicable to this review.

**Issue C. Natural Riverbank and Riparian Habitat:** This issue *"applies to situations where the river bank is in a natural state, or has significant wildlife habitat, as determined by the wildlife habitat inventory."* These guidelines call for the preservation and enhancement of natural banks and areas with riparian habitat.

**Findings:** The riverbank at this location is not in a natural state. This site is identified as Site 15.11a and 15.11b within the Lower Willamette River Wildlife Habitat Inventory. This area received a "Rank V" designation due to low wildlife habitat values and because the site was dominated by heavy industrial marine terminal uses, and because the shoreline is significantly modified with wharves, piers, and engineered rock embankments. This guideline is not directly applicable to this site.

**Issue D. Riverbank Stabilization Treatments:** This issue *"applies to all applications for Greenway Approval."* This guideline promotes bank treatments for upland developments that conserve riparian habitat to the maximum extent practical.

**Findings:** This application is for the removal of contaminated soil from the site, and replacement of that soil with clean fill. No new riverbank stabilization treatments are proposed or required at this time. This site is subject to a separate subdivision application (LUR 01-00618

SU GW) that sets in motion the framework for future development of the site. Therefore, this guideline is not applicable to this review.

**Issue E. Landscape Treatments:** This issue *"applies to all applications for Greenway Approval which are subject to the landscape requirements of the Greenway chapter of Title 33 Planning and Zoning of the Portland Municipal Code."* These guidelines call for landscaping treatments which create a balance between the needs of both human and wildlife populations.

**Findings:** This application is for the removal of contaminated soil from the site, and replacement of that soil with clean fill, within the areas shown on the attached site plans. This site is subject to a separate subdivision application (LUR 01-00618 SU GW) that sets in motion the framework for future development of the site. In addition, the Portland City Council recently amended Chapter 33.440 (by adding Section 020.C) to specify that for soil remediation projects of this type, the landscape requirements of the Greenway Chapter will only apply to the extent that they are applicable to the actual remediation area. In this case the proposed excavations are outside of the greenway setback area. As a result of this recent Zoning Code Amendment, the proposed work will not trigger greenway setback landscaping on this site. Therefore, this guideline is not applicable to the proposed activity.

**Issue F. Alignment of Greenway Trail:** This issue *"applies to all applications for Greenway Approval with Greenway Trail shown on the property in the Willamette Greenway Plan."* These guidelines give direction in the proper alignment of the greenway trail and call for consideration of habitat protection, the physical features of the site and the necessity of maintaining year-round use of the trail.

**Findings:** This application is for the removal of contaminated soil from the site, and replacement of that soil with clean fill. No new development is proposed at this time. This site is subject to a separate subdivision application (LUR 01-00618 SU GW) that sets in motion the framework for future development of the site, including dedication of required greenway trail easements on this site. Greenway trail dedication within this site was made a condition of approval of that separate land use review, LUR 01-00618 SU GW. Provided the greenway trail dedication is provided as set forth in LUR 01-00618 SU GW, this criterion will be met.

In addition, it should be noted that there is no impact from the proposed soil remediation activity that would logically lead to a need for a trail dedication at this time (i.e. there is no legal nexus, and any such requirement would not be proportional to the impact of the proposed work). As a result, outside of the subdivision process occurring on this site, no trail can be required as a result of the proposed activity.

**Issue G. Viewpoints:** This issue *"applies to all applications for Greenway Approval with a public viewpoint shown on the property in the Willamette Greenway Plan and for all applications proposing to locate a viewpoint on the property"*. These guidelines provide direction about the features and design of viewpoints, as required at specific locations.

**Findings:** This application is for the removal of contaminated soil from the site, and replacement of that soil with clean fill. No other new development is proposed at this time. This site is subject to a separate subdivision application (LUR 01-00618 SU GW) that sets in motion the framework for future development of the site, including dedication of required greenway trail easements on this site. A public viewpoint is identified in the Greenway Plan abutting this site - under the Fremont Bridge, adjacent to Lot 1 of the approved subdivision. A Greenway Review and Design Review will be required for development on Lot 1 - and will include consideration of the relationship of those structures to the abutting viewpoint. Because greenway trail dedication within this site was already made a condition of approval of that separate land use review, and because no other new development is proposed at this time that would generate a need for a trail, this guideline is not applicable to this review.

**Issue H. View Corridors:** This issue *"applies to all applications for Greenway Approval with a view corridor shown on the property in the Willamette Greenway Plan"*. These guidelines provide

guidance in protecting view corridors to the river and adjacent neighborhoods.

**Findings:** The Willamete Greenway Plan does not include a designated view corridor from or across this property. This issue is not applicable.

- B. River frontage lots in the River Industrial zone. In the River Industrial zone, uses that are not river-dependent or river-related may locate on river frontage lots when the site is found to be unsuitable for river-dependent or river-related uses. Considerations include such constraints as the size or dimensions of the site, distance or isolation from other river-dependent or river-related uses, and inadequate river access for river-dependent uses.**

**Findings:** This site is not within the River Industrial Zone. This criterion is not applicable.

- C. Development within the River Natural zone. The applicant must show that the proposed development, excavation, or fill within the River Natural zone will not have significant detrimental environmental impacts on the wildlife, wildlife habitat, and scenic qualities of the lands zoned River Natural. The criteria applies to the construction and long-range impacts of the proposal, and to any proposed mitigation measures. Excavations and fills are prohibited except in conjunction with approved development or for the purpose of wildlife habitat enhancement, riverbank enhancement, or mitigating significant riverbank erosion.**

- D. Development on land within 50 feet of the River Natural zone. The applicant must show that the proposed development or fill on land within 50 feet of the River Natural zone will not have a significant detrimental environmental impact on the land in the River Natural zone.**

**Findings:** This site is not within the River Natural Zone, or within 50 feet of a River Natural Zone. These criteria are not applicable.

- E. Development within the greenway setback. The applicant must show that the proposed development or fill within the greenway setback will not have a significant detrimental environmental impact on Rank I and II wildlife habitat areas on the riverbank. Habitat rankings are found in the Lower Willamette River Wildlife Habitat Inventory.**

**Findings:** This site does not contain or abut any Rank I or Rank II wildlife habitat areas on the riverbank. This criterion is not applicable.

- G. Development riverward of the greenway setback. The applicant must show that the proposed development or fill riverward of the greenway setback will comply with all of the following criteria:**

- 1. The proposal will not result in the significant loss of biological productivity in the river;**
- 2. The riverbank will be protected from wave and wake damage;**
- 3. The proposal will not:**
  - a. Restrict boat access to adjacent properties;**
  - b. Interfere with the commercial navigational use of the river, including transiting, turning, passing, and berthing movements;**
  - c. Interfere with fishing use of the river;**
  - d. Significantly add to recreational boating congestion; and**
- 4. The request will not significantly interfere with beaches that are open to the public.**

**Findings:** None of the proposed activities will be riverward of the greenway setback. These criteria are not applicable.

**Excavation and Fill Review****33.830.010 Purpose**

The regulations of this chapter are designed to ensure that excavations and fills:

- Will not cause any nuisance or safety problems or loss of development potential in residential and open space areas; and
- Will not have a significant negative impact on any natural resource values in these areas.

The technical and engineering concerns for excavations and fills are addressed by other Bureaus as part of the building permit process.

**33.830.020 When Review Is Required**

In the situations stated below, excavations and fills are subject to review.

- A. Residential and open space zones. In R and OS zones, excavations and fills over 1,000 cubic yards require an excavation and fill review, except as exempted in 33.830.030 below. R and OS zones with Environmental or Greenway overlay zoning are subject to more restrictive excavation and fill requirements and review. See Chapters 33.430 and 33.440, respectively.
- B. Commercial, employment, and industrial zones. In the C, E, and I zones, excavations and fills over 1,000 cubic yards which are within 400 feet of a residential zone require an excavation and fill review, except as exempted in 33.830.030 below. C, E, and I zones with Environmental or Greenway overlay zoning are subject to more restrictive excavation and fill requirements and review. See Chapters 33.430 and 33.440, respectively.

**Findings:** The proposed work takes place within a residential zone, and will involve more than 1000 cubic yards of material. Unless exempted under 33.830.030, Excavation and Fill review is required.

**33.830.030 Exemption from Review**

Except as modified elsewhere in this Title, the following excavations and fills are exempt from the excavation and fill review:

- A. Those necessary for the preparation of a foundation of a structure or for exterior improvements;
- B. Those associated with public improvements regulated under Title 17, Public Improvements, and
- C. Those in conjunction with a road grading plan approved as part of a preliminary plan for a PUD or an interim plat for a subdivision by OPDR.

**Findings:** No other specific structures or exterior improvements are proposed with this application. For permitting purposes, this work is proposed as a stand-alone activity, and no foundations, or other structures have been proposed at this time. This work is not being permitted under the Public Works permitting process, and is not considered a public improvement. The proposed work is not shown on an approved PUD or subdivision plan. Although there is an approved tentative subdivision plan for this site, the proposed soil remediation work was not shown on grading plans presented in conjunction with the subdivision. In addition, a plat for the subdivision of this site has not been submitted to OPDR for review. Therefore, Excavation and Fill Review is required. The relevant approval criteria are discussed below.

**33.830.050 Approval Criteria**

Requests for excavations and fills review will be approved if the review body finds that the applicant has shown that all of the following approval criteria are met:



- A. Potential on-site or off-site safety hazards will be mitigated, through the use of fencing or other measures;**

**Findings:** The site is gated and fenced to prevent unauthorized entry. On-site hazards are therefore mitigated. The primary off-site hazard would occur at the location where the contaminated soil will be disposed/stored. The applicant has stated that the excavated materials will be brought to a proper disposal site. If that site is within the City of Portland, disposal must occur in a location consistent with applicable Zoning regulations, and Excavation/Fill review may be required. This criterion is met, provided that applicable City requirements are met if the disposal site is within the City of Portland.

- B. The hours and total duration of operation will be limited to reduce the impacts on the neighborhood;**

**Findings:** Surrounding uses are primarily industrial and commercial in nature. Existing residential uses are over ½ mile away. Excavation and fill activities will occur during normal business hours, and in conformance with Title 18, Noise Control. It is anticipated that the project will occur over a two month period, between July and August 2002. This criterion can be met, with the condition that relevant noise control requirements are met (Title 18 of Portland City Code).

- C. Off-site dust and dirt will be kept to a reasonable minimum;**

**Findings:** As noted in the proposed Erosion Control Plan, measures will be taken to reduce erosion that might occur as a result of remedial activities. Depending on weather conditions, dust is possible. Water will be applied to dampen soil if necessary to control dust. During the course of work, the amount of equipment traffic entering/leaving the contaminated area will be kept to a minimum. For example, trucks or drop boxes will be staged adjacent to the area of contamination. Excavators/loaders will be stationed within the contaminated soil will load the trucks/drop boxes without leaving the contaminated area. All equipment leaving the contaminated area will be decontaminated by dry brushing to remove loose soil. Adjacent roadway surfaces with tracked soil will be promptly cleaned. During the construction period, all erosion control facilities will be inspected daily. This criterion can be met, with the condition that the applicant obtains a Site Development Permit and complies with relevant Erosion and Sediment Control Regulations (Title 10 of Portland City Code).

- D. The final contours and surface condition of the site will not preclude future development for uses allowed in the base zone; and**

**Findings:** The applicant proposes to bring in an equivalent amount of clean fill to restore existing grades. This criterion is met.

- E. Disruptions to the natural drainage pattern will be mitigated, and will not result in mud or sediment entering the City's stormwater disposal system, rivers, creeks, sloughs, or other identified waterbodies.**

**Findings:** The site is paved with concrete and asphalt. There is little or no vegetation present. Excavation will be limited to the areas shown on the attached site plan (an area of approximately 13,6127 square feet (about 2% of the Terminal One site). As such, there will be no significant disruption of natural drainage patterns on the site. The proposed activities are subject to the requirements of the City's Erosion and Sediment Control Manual (per Title 10). Biofilter bags will be installed at storm drain inlets to ensure sediment-laden water does not enter the drainage system. This criterion can be met, with the condition that the applicant obtains a Site development Permit and complies with relevant Erosion and Sediment Control Regulations (Title 10 of Portland City Code).

**DEVELOPMENT STANDARDS**

Unless specifically required in the approval criteria listed above, this proposal does not have to meet the development standards in order to be approved during this review process. The plans submitted for a building or zoning permit must demonstrate that all development standards of Title 33 can be met, or have received an Adjustment or Modification via a land use review prior to the approval of a building or zoning permit.

**CONCLUSIONS**

The applicant proposes to remove contaminated soil from the site, and replace that soil with clean fill, within the areas shown on the attached site plans.

A separate redevelopment proposal was the subject of a recent Subdivision and Greenway Review to establish a framework for future redevelopment of this site (LUR 01-00618). Permits have already been issued for the demolition of existing buildings on the site. In addition, a Greenway Review has been approved for demolition of the large wharf on the river-facing edge of the site.

As described in this report, the proposed activity meets the applicable Greenway Review and Excavation/Fill Review approval criteria. Many of the approval criteria and guidelines are not applicable, because removal/replacement of contaminated soil is the only activity proposed with this review. Approval of this land use review is therefore appropriate. Conditions of approval require that the applicant obtain necessary City permits and comply with relevant sections of the Erosion and Sediment Control Code, and Noise Control Codes applicable to construction activities (Titles 10 and 18). In addition, the applicant must ensure that contaminated materials are brought to an appropriate disposal site in accordance with local, state, and federal requirements.

**ADMINISTRATIVE DECISION**

**Approval of a Greenway Review and an Excavation/Fill Review** to allow removal of approximately 2,700 cubic yards of contaminated soil from a portion of the Terminal One site, and to allow placement of an equivalent amount of clean fill to backfill the excavated areas. Approved excavation/fill areas are shown on the attached Exhibits C.1 through C.4, signed and dated May 20, 2002. Approval is subject to the following conditions:

- A. The applicant must obtain a Site Development Permit. Final erosion control plans must comply with all relevant provisions of Title 10 of Portland City Code (Erosion and Sediment Control Regulations).
- B. Construction activities must be carried out in conformance with Title 18 of Portland City Code (Noise Control).
- C. The applicant is responsible for ensuring that excavated materials are disposed of in conformance with applicable local, state, and federal requirements. If contaminated materials are moved to another location within the City of Portland, that receiving site must be zoned to allow disposal/management of such materials, and Excavation/Fill review may be required in as specified in Title 33.

Staff Planner: Eric Engstrom

Decision rendered by: Susan Feldman on May 20<sup>th</sup>, 2002

Decision filed May 21, 2002;

Decision mailed May 23, 2002

This application was determined to be complete on April 29<sup>th</sup>, 2002.

**Note:** some of the information contained in this report was provided by the applicant. As required by Section 33.800.060 of the Portland Zoning Code, the burden of proof is on the applicant to show that the approval criteria are met. The Office of Planning and Development Review has independently reviewed the information submitted by the applicant and has included this information only where the Office of Planning and Development Review has determined the information satisfactorily demonstrates compliance with the applicable approval criteria. This report is the decision of the Office of Planning and Development Review with input from other City and public agencies.

**Appealing this decision.** This decision may be appealed to the Hearings Officer, which will hold a public hearing. Appeals must be filed **by 4:30 PM on June 6, 2002** at 1900 SW Fourth Ave. Appeals can be filed on the first floor in the Development Services Center until 3 p.m. After 3 p.m., appeals must be submitted to the receptionist at the front desk on the fourth floor. **An appeal fee of \$250 will be charged.** The appeal fee will be refunded if the appellant prevails. Recognized neighborhood associations and low-income individuals appealing a decision for their personal residence may qualify for an appeal fee waiver. Assistance in filing the appeal and information on fee waivers is available from OPDR in the Development Services Center. Fee waivers for low-income individuals must be approved prior to filing your appeal; please allow 3 working days for fee waiver approval. Fee waivers for neighborhood associations require a vote of the authorized body of your association. Please see the appeal form for additional information.

The file and all evidence on this case are available for your review by appointment only. Please contact the receptionist at 503-823-7967 to schedule an appointment. I can provide some information over the phone. Copies of all information in the file can be obtained for a fee equal to the cost of services. Additional information about the City of Portland, city bureaus, and a digital copy of the Portland Zoning Code is available on the internet at [www.ci.portland.or.us](http://www.ci.portland.or.us).

**Attending the hearing.** If this decision is appealed, a hearing will be scheduled, and you will be notified of the date and time of the hearing. The decision of the Hearings Officer is final; any further appeal must be made to the Oregon Land Use Board of Appeals (LUBA) within 21 days of the date of mailing the decision, pursuant to ORS 197.620 and 197.830. Contact LUBA at 550 Capitol St. NE, Salem, Oregon 97310 or phone 1-503-373-1265 for further information.

Failure to raise an issue by the close of the record at or following the final hearing on this case, in person or by letter, may preclude an appeal to the Land Use Board of Appeals (LUBA) on that issue. Also, if you do not raise an issue with enough specificity to give the Hearings Officer an opportunity to respond to it, that also may preclude an appeal to LUBA on that issue.

**Recording the final decision.** Before you proceed with your project, you are required to record the final Land Use Review decision with the Multnomah County Recorder. A building or zoning permit will be issued only after the final decision is recorded. The final decision may be recorded on or after **June 7<sup>th</sup>, 2002 – the day following the last day to appeal.**

The applicant, builder, or a representative may record the final decision as follows:

- **By Mail:** Send the two recording sheets (sent in separate mailing) and the final Land Use Review decision with a check made payable to the Multnomah County Recorder to: Multnomah County Recorder, P.O. Box 5007, Portland OR 97208. The recording fee is identified on the recording sheet. Please include a self-addressed, stamped envelope.
- **In Person:** Bring the two recording sheets (sent in separate mailing) and the final Land Use Review decision with a check made payable to the Multnomah County Recorder to the County Recorder's office located at 501 SE Hawthorne Boulevard, #158, Portland OR 97214. The recording fee is identified on the recording sheet.

For further information on recording, please call the County Recorder at 503-988-3034.

**Expiration of this approval.** This decision expires three years from the date the final decision is rendered unless:

- A building permit has been issued, or
- The approved activity has begun, or
- In situations involving only the creation of lots, the land division has been recorded.

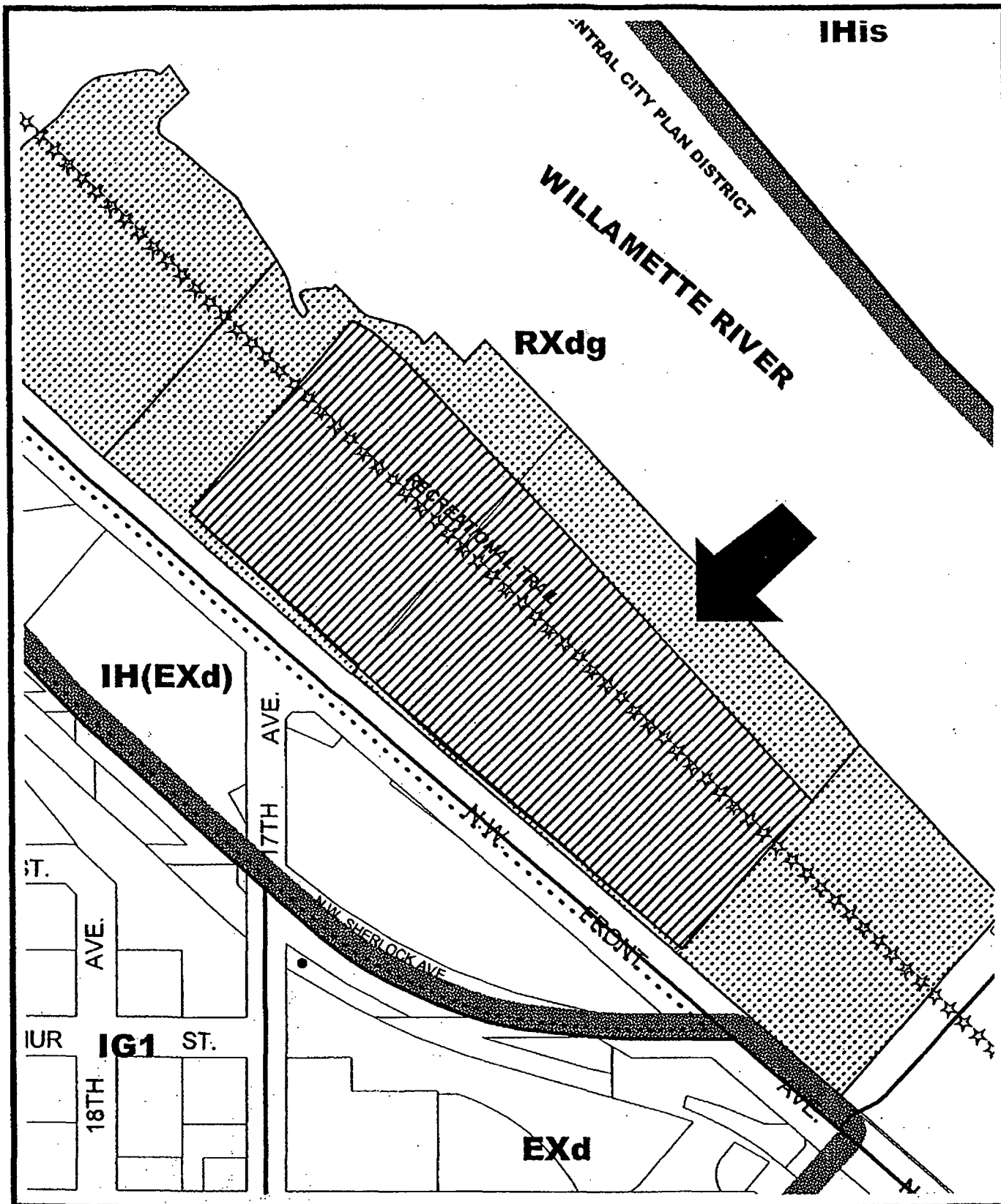
**Applying for your permits.** A building permit, occupancy permit, or development permit must be obtained before carrying out this project. At the time they apply for a permit, permittees must demonstrate compliance with:

- All conditions imposed here.
- All applicable development standards, unless specifically exempted as part of this land use review.
- All requirements of the building code.
- All provisions of the Municipal Code of the City of Portland, and all other applicable ordinances, provisions and regulations of the City.

**EXHIBITS**  
NOT ATTACHED UNLESS INDICATED

- A. Applicant's Statements
  - 1. Initial Narrative, dated April 15, 2002
  - 2. Supplemental Memo, dated May 6, 2002
- B. Zoning Map (attached)
- C. Plans/Drawings:
  - 1. Area B Project Site Plan (attached)
  - 2. Excavation and Fill Plan - Areas 1, 2 and 3
  - 3. Excavation and Fill Plan - Areas 4, 5 and 6
  - 4. Erosion Control Plan
- D. Notification information:
  - 1. Mailing list
  - 2. Mailed notice
- E. Agency Responses:
  - 1. Bureau of Environmental Services
  - 2. Bureau of Transportation Engineering and Development Review
  - 3. Fire Bureau
  - 4. Site Development Review Section of OPDR
- F. Correspondence (none received)
- G. Other:
  - 1. Original LU Application
  - 2. Site History Research
  - 3. Taxlot Information
  - 4. Removal Action Work Plan, Terminal One South (Hart Crowser, dated March 26, 2002)
  - 5. Plans Submitted with Site Development Permit 02-117802 SD

**The Office of Planning and Development Review is committed to providing equal access to information and hearings. If you need special accommodations, please call 503-823-7967 (TTY 503-823-6868).**



# ZONING



Site



Property also owned



Historic Landmark



This site lies within the:  
CENTRAL CITY PLAN DISTRICT

|             |                    |
|-------------|--------------------|
| File No.    | LU 02-116179 GW EF |
| 1/4 Section | 2828               |
| Scale       | 1 inch = 200 feet  |
| State-Id    | 1N1E28D -00300     |

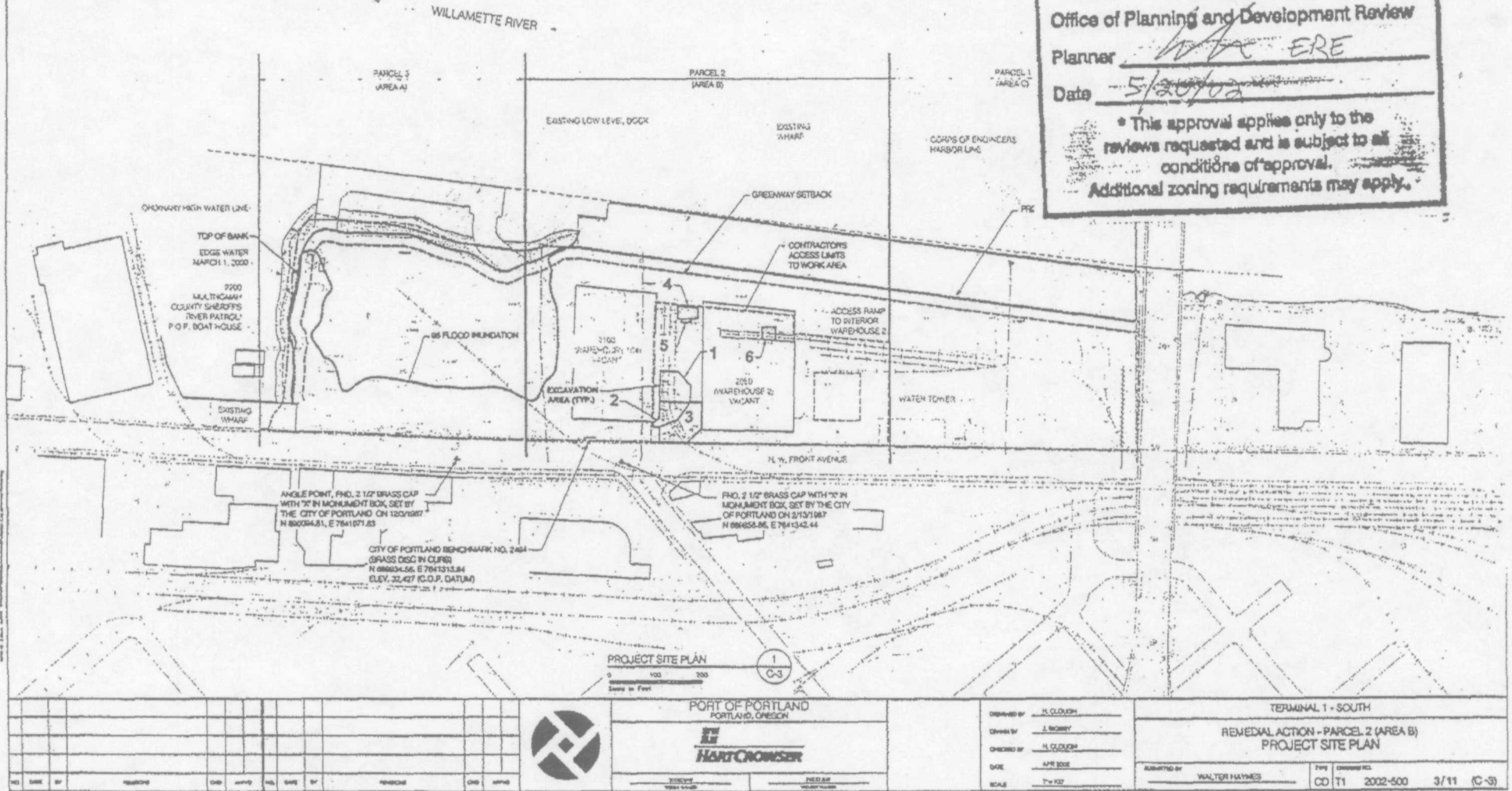
POPT1S602760

LU 02-116179 GW, EF

- NOTES:
1. GROUND SURFACE CONTOURS CITY OF PORTLAND DATUM.
  2. FEMA 100 YEAR FLOOD PLAIN ELEVATION 20.4 FEET.

**\*Approved\***  
**City of Portland**  
**Office of Planning and Development Review**  
**Planner** WAC ERE  
**Date** 5/20/02

\* This approval applies only to the reviews requested and is subject to all conditions of approval. Additional zoning requirements may apply.



LU # 02-116179  
 EXHIBIT C.1

POPT1S602761



1. EXCAVATE SOIL FROM THE AREAS AND TO THE ELEVATIONS SHOWN.
2. CONTRACTOR SHALL SLOPE OR SHORE EXCAVATIONS AS INDICATED ON THE DETAILS ON SHEET C-6. ALL WORK SHALL BE IN ACCORDANCE WITH OSHA REGULATIONS.
3. NOMINAL AREAS, DEPTHS, AND VOLUMES FOR NEAT LINE DIMENSIONS ARE PROVIDED IN THE SCHEDULE BELOW. EXCAVATION VOLUMES REQUIRED FOR "CONTRACTOR DETERMINED SLOPES" ARE NOT INCLUDED IN THE SCHEDULE BELOW.
4. "CLEAN OVERBURDEN" SHALL BE STOCKPILED AT A LOCATION DETERMINED BY CONTRACTOR. "CLEAN OVERBURDEN" SHALL BE USED TO BACKFILL EXCAVATIONS.
5. "CONTAMINATED SOIL" SHALL BE REMOVED FROM THE SITE FOR TREATMENT OR DISPOSAL AT A PERMITTED FACILITY.
6. BACKFILL EXCAVATIONS TO EXISTING ELEVATION. PLACE GEOTEXTILE ON EXCAVATION FLOOR AND WALLS PRIOR TO BACKFILLING. FILL SHALL BE "CLEAN OVERBURDEN" OR PORT "BORROW". ANY EXCAVATION IN THE AREA OF THE DEMOLISHED LOADING DOCK SHALL BE FILLED TO THE GRADE OF AREA 2.
7. UTILITIES SHOWN ARE BASED ON DESIGN DRAWINGS (SEE REFERENCE DRAWINGS) AND SURVEY OF VISIBLE PHYSICAL FEATURES AND LOCATE MARKINGS. CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UTILITIES.
8. PORT WILL IDENTIFY UTILITY SHUT-OFFS TO CONTRACTOR.

SCHEDULE OF EXCAVATION AREAS, DEPTHS, AND VOLUMES:

| AREA   | AREA (SQUARE FEET) | EXCAVATION DEPTH (FEET) | CLEAN OVERBURDEN DEPTH (FEET) | CLEAN OVERBURDEN VOLUME (CUBIC YARDS) | CONTAMINATED SOIL VOLUME (CUBIC YARDS) |
|--------|--------------------|-------------------------|-------------------------------|---------------------------------------|--|
| 1      | 3,838              | 3                       | -                             | -                                     | 428                                    |
| 2      | 2,316              | 10                      | -                             | -                                     | 932                                    |
| 3      | 5,068              | 10                      | 5                             | 900                                   | 900                                    |
| TOTALS |                    |                         |                               | 900                                   | 2,260                                  |

EXCAVATION COORDINATES

| POINT | NORTHING | EASTING   | EXISTING ELEV. | BOTTOM EXCAVATION ELEV. |
|-------|----------|-----------|----------------|-------------------------|
| A     | 888838.5 | 7841432.8 | 32.1           | 21.7                    |
| B     | 888882.5 | 7841432.0 | 31.5           | 21.7                    |
| C     | 888870.0 | 7841443.0 | 31.8           | 21.7                    |
| D     | 888879.9 | 7841443.8 | 31.7           | 21.7                    |
| E     | 888875.8 | 7841483.8 | 31.5           | 21.7                    |
| F     | 888804.0 | 7841488.9 | 21.5           | 21.728.5                |
| G     | 888801.8 | 7841531.8 | 31.5           | 28.5                    |
| H     | 888828.5 | 7841580.3 | 31.3           | 28.5                    |
| I     | 888854.5 | 7841581.5 | 31.7           | 28.5                    |
| J     | 888880.1 | 7841537.5 | 31.8           | 21.728.5                |
| K     | 888843.1 | 7841557.4 | 31.9           | 21.7                    |
| L     | 888800.2 | 7841520.0 | 31.9           | 21.7                    |
| M     | 888796.6 | 7841478.8 | 32.0           | 21.7                    |
| N     | 888882.0 | 7841494.1 | 31.5           | 21.7                    |

HORIZONTAL: OREGON STATE PLANE, NAD 83

VERTICAL: CITY OF PORTLAND DATUM

EXCAVATION AND FILL PLAN AREAS 1, 2, AND 3

Scale in Feet

**\*Approved\***  
**City of Portland**  
 Office of Planning and Development Review  
 Planner WRE ERE  
 Date 5/30/02  
 \* This approval applies only to the reviews requested and is subject to all conditions of approval.  
 Additional zoning requirements may apply.

STRUCTURALLY SUPPORT WAREHOUSE 104  
 SEE SHEET S-1

EXCAVATE SOIL FROM AREAS 1, 2, AND 3

PLACE GEOTEXTILE AND BACKFILL AREAS 1, 2, AND 3  
 SEE SHEET C-6

STRUCTURALLY SUPPORT WAREHOUSE 2  
 SEE SHEET S-1

SHORE EXCAVATION ADJACENT TO FRONT AVENUE. SEE SHEET S-1

|                                      |  |  |  |  |  |  |  |
|--------------------------------------|--|--|--|--|--|--|--|
| PORT OF PORTLAND<br>PORTLAND, OREGON |  |  |  | TERMINAL 1 - SOUTH                           |  |  |  |
| DESIGNED BY: H. CLOUGH               |  |  |  | REMEDIAL ACTION - PARCEL 2 (AREA B)          |  |  |  |
| DRAWN BY: J. BERRY                   |  |  |  | EXCAVATION AND FILL PLAN - AREAS 1, 2, AND 3 |  |  |  |
| CHECKED BY: H. CLOUGH                |  |  |  | SUBMITTED BY: WALTER HAYNES                  |  |  |  |
| DATE: APR 2002                       |  |  |  | TIME: 2002-500                               |  |  |  |
| SCALE: 1"=50'                        |  |  |  | 7/11 (C-7)                                   |  |  |  |

LU 02-116179 GW.EF  
 LU # 02-116179  
 EXHIBIT C.2



# EXCAVATION NOTES:

- EXCAVATE SOIL FROM THE AREAS AND TO THE ELEVATIONS SHOWN.
- CONTRACTOR SHALL SLOPE OR SHORE EXCAVATIONS AS INDICATED ON THE DETAILS ON SHEET C-8. ALL WORK SHALL BE IN ACCORDANCE WITH OSHA REGULATIONS.
- NOMINAL AREAS, DEPTHS, AND VOLUMES FOR NEAT LINE DIMENSIONS ARE PROVIDED IN THE SCHEDULE AT RIGHT. EXCAVATION VOLUMES REQUIRED FOR "CONTRACTOR DETERMINED SLOPES" ARE NOT INCLUDED IN THE SCHEDULE AT RIGHT.
- "CONTAMINATED SOIL" SHALL BE REMOVED FROM THE SITE FOR TREATMENT OR DISPOSAL AT A PERMITTED FACILITY.
- BACKFILL EXCAVATIONS TO EXISTING ELEVATION. PLACE GEOTEXTILE ON EXCAVATION FLOOR AND WALLS PRIOR TO BACKFILLING. FILL SHALL BE "CLEAN OVERBURDEN" OR PORT "BORROW".
- UTILITIES SHOWN ARE BASED ON DESIGN DRAWINGS. SEE REFERENCE DRAWINGS AND SURVEY OF VISIBLE PHYSICAL FEATURES AND LOCATE MARKINGS. CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UTILITIES.
- PORT WILL IDENTIFY UTILITY SHUTOFFS TO CONTRACTOR.

## SCHEDULE OF EXCAVATION AREAS, DEPTHS, AND VOLUMES:

| AREA   | AREA (SQUARE FEET) | EXCAVATION DEPTH (FEET) | CLEAN OVERBURDEN DEPTH (FEET) | CLEAN OVERBURDEN VOLUME (CUBIC YARDS) | CONTAMINATED SOIL VOLUME (CUBIC YARDS) |
|--------|--------------------|-------------------------|-------------------------------|---------------------------------------|--|
| 4      | 1,104              | 5                       | —                             | —                                     | 204                                    |
| 5      | 140                | 3                       | —                             | —                                     | 16                                     |
| 6      | 770                | 5-8                     | —                             | —                                     | 188                                    |
| TOTALS |                    |                         |                               | 0                                     | 408                                    |

## EXCAVATION COORDINATES

| POINT | NORTHING | EASTING   | EXISTING ELEV. | BOTTOM EXCAVATION ELEV. |
|-------|----------|-----------|----------------|-------------------------|
| O     | 690010.7 | 7641630.6 | 31.3           | 26.7                    |
| P     | 690001.6 | 7641646.1 | 31.4           | 26.7                    |
| Q     | 690000.1 | 7641679.0 | 32.1           | 26.7                    |
| R     | 689992.4 | 7641664.3 | 32.0           | 26.7                    |
| S     | 689992.6 | 7641632.2 | 31.6           | 26.7/26.4               |
| T     | 690005.7 | 7641636.8 | 31.2           | 26.7/26.4               |
| U     | 690000.3 | 7641632.0 | 31.2           | 26.4                    |
| V     | 689997.1 | 7641647.7 | 31.6           | 26.4                    |
| W     | 689976.5 | 7641700.2 | 35.4           | 26.7                    |
| X     | 690060.0 | 7641782.4 | 35.4           | 26.7                    |
| Y     | 689936.9 | 7641764.7 | 31.7           | 26.7                    |
| Z     | 689933.1 | 7641743.7 | 31.7           | 26.7                    |

HORIZONTAL: OREGON STATE PLANE, NAD 83

VERTICAL: CITY OF PORTLAND DATUM

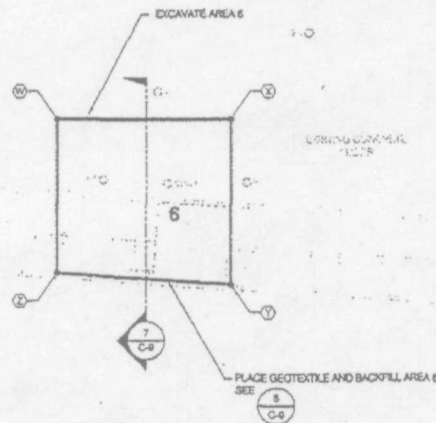
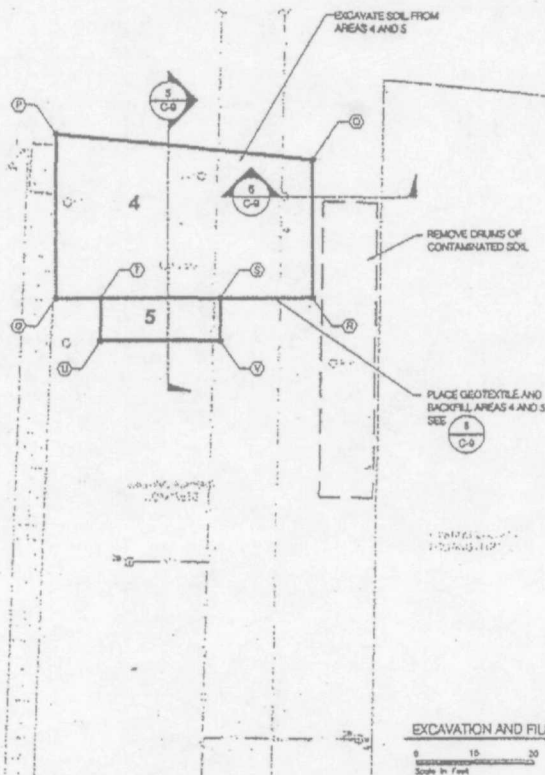
**\*Approved\***  
City of Portland

Office of Planning and Development Review

Planner *h/ere*

Date *5/20/02*

\* This approval applies only to this revision. A requirement for all conditions of approval. Additional zoning requirements may apply.



EXCAVATION AND FILL PLAN AREAS 4, 5, AND 6

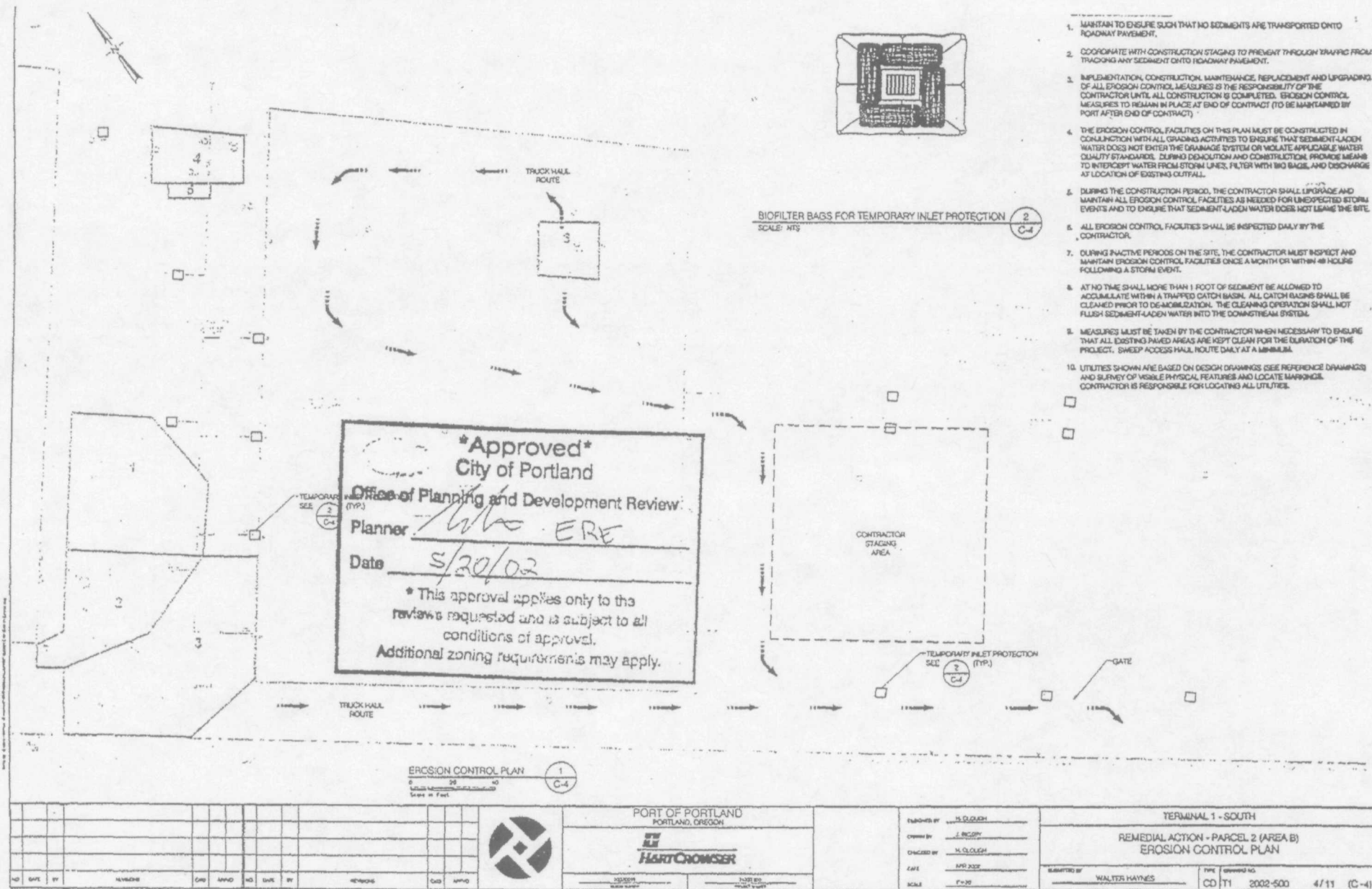
Scale in Feet

1  
C-8

|                                      |  |  |  |  |  |  |  |  |  |                               |  |  |  |
|--------------------------------------|--|--|--|--|--|--|--|--|--|-------------------------------|--|--|--|
| PORT OF PORTLAND<br>PORTLAND, OREGON |  |  |  |  |  |  |  |  |  | DESIGNED BY: <i>H. CLOUGH</i> |  | TERMINAL 1 - SOUTH                           |  |
| HARTCHOWSER                          |  |  |  |  |  |  |  |  |  | DRAWN BY: <i>A. BROWN</i>     |  | REMEDIAL ACTION - PARCEL 2 (AREA B)          |  |
|                                      |  |  |  |  |  |  |  |  |  | CHECKED BY: <i>H. CLOUGH</i>  |  | EXCAVATION AND FILL PLAN - AREAS 4, 5, AND 6 |  |
|                                      |  |  |  |  |  |  |  |  |  | DATE: <i>APRIL 2002</i>       |  | SUBMITTED BY: <i>WALTER HAYNES</i>           |  |
|                                      |  |  |  |  |  |  |  |  |  | SCALE: <i>1"=10'</i>          |  | CD T1 2002-500 6/11 (C-8)                    |  |

LU 02-116179 GW, EF

LU # 02-116179  
EXHIBIT C.3



LU 02-116179 GW, EF

LU # 02-116179  
EXHIBIT C.4



16

CITY OF PORTLAND  
OFFICE OF PLANNING AND DEVELOPMENT REVIEW  
1900 SW Fourth Avenue, Suite 5000  
Portland, OR 97201 P524

**Land Use Review Notice Enclosed**  
**Case # 02-126821 GW EF**



**Office of Planning  
and  
Development Review  
Land Use Review Division**

1900 SW Fourth Ave. Suite 5000  
Portland, Oregon 97201  
Telephone: 503-823-7300  
TDD: 503-823-6868  
FAX: 503-823-5630  
[www.opdr.ci.portland.or.us](http://www.opdr.ci.portland.or.us)

**Date:** September 27, 2002  
**To:** Interested Person  
**From:** Eric Engstrom, Land Use Review Section  
503-823-0977

**NOTICE OF A TYPE II DECISION ON A PROPOSAL IN  
YOUR NEIGHBORHOOD**

The Office of Planning and Development Review has approved a proposal in your neighborhood. The reasons for the decision are included in this notice. If you disagree with the decision, you can appeal it and request a public hearing. Information on how to appeal this decision is listed at the end of this notice.

**CASE FILE NUMBER: LU 02-126821 GW EF**

**GENERAL INFORMATION**

**Applicant Info:** Tim Ralston, Riverscape LLC (Property Owner, Applicant)  
931 SW King Avenue  
Portland, OR 97201  
(503) 221-5343

Bill Bach, Port of Portland (Property Owner)  
121 NW Everett Street  
Portland, OR 97209  
(503) 944-7254

**Representatives:** Jeff Bachrach, Ramis Crew Corrigan & Bachrach (Attorney)  
1727 NW Hoyt Street  
Portland, OR 97209  
(503) 222-4402

Larry Porter, The Porter Company, Inc. (Consultant)  
5510 SW Dover Loop  
Portland, OR 97225  
(503) 977-0497

**Site Address:** 2100 W/NW Front Avenue

**Legal Description:** Lots 11 through 20 of the River Block of Watson's Addition (Tax Lots 100, 101, 102, 300, 301, 302); Lots 21 through 25 of River Block 2, Doscher's Addition (Tax Lots 200, 201, 202); Sherlock's Addn., Block 37, portions of Lots 2 through 12 (Tax Lot 100).

**Tax Account No.:** R215000010, R766004290, R883803920, R883804040, R883803930, R883803940, R883804050, R883804060, R215000030, R215000050

**State ID No.:** 1N1E28DB 00200, 1N1E28DB 00100, 1N1E28DD 00100,  
1N1E28D 00300, 1N1E28DD 00101, 1N1E28DD 00102,  
1N1E28D 00301, 1N1E28D 00302, 1N1E28DB 00201,

1N1E28DB 00202

**Quarter Section:** 2828

**Neighborhoods:** Northwest District Association, contact John Bradley at (503) 227-7484

**Within 1000'** Pearl District, contact Patricia Gardner at 503-827-0505.  
Overlook, contact Jerry Lindsey at 503-281-5765..  
Eliot, contact Pauline Bradford at (503) 281-6635.

**Business Districts:** Northwest Industrial NA, contact Kent Studebaker at (503) 227-6638

**Within 1000'** Nob Hill Business Association, Libby Hartung at (503) 226-0363  
Pearl District Business Association, Todd Breslau at (503) 227-3400  
Lower Albina Council, Kurt Widmer at (503) 331-7241.

**District Coalition:** Neighbors West/Northwest (W/NW), contact David Alred at (503) 223-3331

**Zoning:** RX dg (High density multi-dwelling zone with Design and River General Greenway overlay zones)  
  
Central City Plan District, River District Subdistrict  
Recreational Trail Designation

**Case Type:** GW, EF, AD (Greenway Review with concurrent Excavation and Fill Review, and Zoning Code Adjustment)

**Procedure:** Type II Procedure, an administrative decision with possible appeal to the Land Use Hearings Officer

**Proposal:** The subject property consists of 15.66 acres located along the west bank of the Willamette River between the Freemont Bridge and a small inlet about ¼ of a mile northwest of the bridge. The property is commonly referred to as Terminal One South. Historically this site has been used as a marine terminal.

The applicant proposes to carry out mass excavation and grading on the site, in preparation for future development. The proposed work includes the excavation of approximately 2,750 cubic yards of material, and the placement of approximately 5,500 cubic yards of fill. Included within the proposed fill will be approximately 2,750 cubic yards of crushed concrete generated from demolition activities on the site. The applicant plans to eventually develop the site with high-density residential development with some commercial or mixed-use components (the development of buildings on the site is not proposed with this land use review).

Four recent Land Use Reviews are also associated with this site. LUR 01-00618 SU GW approved a tentative plan for a 12-lot phased subdivision on the site – though no Final Plat has been submitted for City review. LUR 01-00682 GW approved demolition of the existing wharf on the river-facing portion of the site. LU 02-126821 GW EF and LU 02-135500 GW EF approved excavation and fill related to the removal of contaminated soils from a portion of the site. The proposed general site grading work would follow the previously approved demolition and soil cleanup activities.

Excavations and fills in residential zones that are over 1,000 cubic yards require Excavation and Fill Review. Greenway Review is required because the site is located in the Greenway overlay zone.

**Relevant Approval Criteria:**

In order to be approved, this proposal must comply with the approval criteria of Title 33:

- 33.440.350 (Greenway Approval Criteria, including the applicable
- 33.830.050 (Excavation and Fill Approval Criteria)

Willamette Greenway Design  
Guidelines)

This application was determined to be complete on June 28, 2002.

## ANALYSIS

**Site and Vicinity:** The site abuts the Willamette River immediately downstream of the Fremont Bridge (Interstate 405). The property is 300 to 450 feet deep, and about 1,850 feet long. With the exception of the riverbank, the site is relatively flat, with elevations ranging from 29 to 35 feet above sea level (NGVD). The 100-year floodplain elevation at this point in the Willamette River is 28.3 feet above sea level (NGVD). The ordinary high water line is approximately 17 feet above sea level (NGVD).

There were a variety of existing port-oriented improvements on the upland portion of the site, including several railroad spurs, several large warehouses, and a water tower. Demolition of these improvements is underway. Most of the site is paved. There is a large concrete pier extending into the river from the northern corner of the site. In the cove northwest of the site is a floating dock used by the Sheriff's office. There are several large-diameter sewer and stormwater outfall pipes that cross the site in easements.

Immediately southeast of the site is the Fremont Bridge. Traffic lanes of the bridge are elevated about 125 to 175 feet above the ground surface. Beyond the bridge is an office complex with a parking lot. A short segment of completed greenway trail ends at the bridge. To the northwest of the site is another Port of Portland terminal, with a large wharf and several warehouses. Beyond the Port of Portland facilities, the neighborhood to the west of this site is an Industrial Sanctuary (zoned IH). Across the river to the northeast is the Overlook Bluff and the Albina Yards – a large regionally-important railroad switching yard. To the south of the site is an area of industrial warehouses, offices, and industrial buildings, with a more traditional 200-foot by 200-foot block pattern. To the southeast of the site is a large area where a former rail yard is being redeveloped for mixed use and high density residential uses (the River District).

**Zoning:** The site is zoned RXdg – High Density Residential; with a Design and Greenway General overlay. The site is within the River District subarea of the Central City Plan District. There is also a public recreational trail designation on the site.

The RX Zone is a high-density multi-dwelling zone. Allowed housing developments are characterized by a very high percentage of building coverage. The major types of new housing development will be medium and high rise apartments and condominiums, often with allowed retail, institutional, or other service oriented uses. Generally, RX zones will be located near the center of the city where transit is readily available and where commercial and employment opportunities are nearby. RX zones will usually be applied in combination with the Central City Plan District.

The Design Overlay Zone promotes the conservation, enhancement, and continued vitality of areas of the City with special scenic, architectural, or cultural value. This is achieved through the creation of design districts and applying the Design Overlay Zone as part of community planning projects, development of design guidelines for each district, and by requiring design review or compliance with the Community Design Standards. In addition, Design Review or compliance with the Community Design Standards ensures that certain types of infill development will be compatible with the neighborhood and enhance the area.

The Greenway regulations are intended to:

- Protect, conserve, enhance, and maintain the natural, scenic, historical, economic, and recreational qualities of lands along Portland's rivers;
- Establish criteria, standards, and procedures for the development of land, change of uses, and the intensification of uses within the greenway;

- Increase public access to and along the Willamette River for the purpose of increasing recreational opportunities, providing emergency vehicle access, assisting in flood protection and control, providing connections to other transportation systems, and helping to create a pleasant, aesthetically pleasing urban environment; and
- Implement the City's Willamette Greenway responsibilities as required by ORS 390.310 to 390.368.

The Public Recreational Trail requirements are intended to:

- Increase recreational opportunities within the City of Portland and connect these recreational opportunities with a regional recreational trail system;
- Increase public access along the Willamette River and to other significant natural resource areas;
- Provide emergency vehicle access;
- Provide access to increase public safety;
- Assist in flood protection and control;
- Assist in shoreline anchoring;
- Support alternative modes of transportation;
- Provide connections to other transportation systems;
- Implement the City's Comprehensive Plan policies regarding public recreational trails;
- Help create a pleasant, aesthetically pleasing urban environment; and
- Provide consistent standards for trail development.

The Central City Plan District implements the Central City Plan and other plans applicable to the Central City area. These other plans include the Downtown Plan, the River District Plan, the University District Plan, and the Downtown Parking and Circulation Policy. The Central City Plan District implements portions of these plans by adding code provisions which address special circumstances existing in the Central City area.

**Land Use History:** City records indicate that prior land use reviews include the following:

02-116179 GW EF and LU 02-135500 GW EF

Greenway and excavation/fill reviews to approve environmental cleanup activities (removal of contaminated soil from the site).

01-00682 GW

A greenway review approved demolition of the large wharf located along the river-facing edge of the site. Demolition activities are underway.

01-00618 SU GW

A subdivision proposal with concurrent greenway review was submitted in September of 2001. That subdivision would divide the site into 12 lots, with several new public streets. The preliminary subdivision approval was granted by the Hearings Officer on January 4<sup>th</sup>, 2002. An appeal was filed, but City Council upheld the decision in a public hearing on February 14<sup>th</sup>, 2002.

A number of requirements (conditions of approval) were attached to City Council's approval of the preliminary subdivision plan (LUR 01-00618). One condition of approval (C.4) requires the applicant to install ground improvements to stabilize the ground on this site to mitigate seismic hazards (liquefaction danger during an earthquake). Within each phase of the development, these ground improvements must be made prior to any other development, unless otherwise approved by the Site Development Section of OPDR.

01-00521 GW

A 2001 Greenway Review approved construction of the West Side Combined Sewer Overflow (CSO) tunnel and pipeline project. The CSO Pipe is a 14-foot diameter below-grade tunnel connecting from SW Clay Street along Front Avenue to the Swan Island Pump Station. The tunnel is designed to capture sewage overflows from Portland combined sewers and direct that overflow to treatment facilities. The project is mandated by The Oregon Department of

Environmental Quality (DEQ). The CSO tunnel will be located under NW Front Avenue, and impacts the site in two places:

- About 150 feet northwest of NW 17<sup>th</sup> Avenue intersection OPDR-approved plans show an access shaft (manhole). All construction related to this shaft will be within the right-of-way.
- Just northwest of the Fremont Bridge will be the Fremont Conduit Diversion, a vertical drop structure, and a series of connected pipes and manholes.

There are no conditions of approval from the CSO project review that would impact the present proposal.

99-00995 GW and 01-00111 AD

Two recent land use reviews were related to a proposal to locate kitchen support facilities for a boat moorage located on another portion of the same site. These cases were withdrawn.

98-01041 DZ

A 1998 Design Review approved partial demolition of several warehouses on the site. Design Review was required because the demolitions were only partial. The new exterior walls on several of the buildings were required to be finished to match existing exterior surfaces. These buildings will be completely removed with redevelopment of this site.

D 37-81

An additional 3.5 feet of right-of-way was dedicated to NW Front Avenue in 1981. There were no conditions associated with this approval.

CU 100-75 and CU 75-71

Two land use reviews for excavation and fill were approved within the site in 1971 and 1975. There are no other records or specific plans related to these cases on file with the City.

ZC 4684

There is a record of a Zone Change review covering a large area of West Portland, including this site. No additional documentation of this case is available.

**Agency Review:** The following Bureaus have responded with no issues or concerns:

- Bureau of Transportation Engineering
- Water Bureau
- Fire Bureau

**Portland Parks and Recreation Urban Forestry Division** provided comments regarding street trees, which will be required with street construction and development of the site. See Exhibit E.6 for details.

**The Bureau of Environmental Services (BES)** responded with several comments.

- BES notes that additional public works permits will be required to install infrastructure. BES also notes that they will not issue the applicable public works permits until the seismic related ground improvements are addressed to the satisfaction of OPDR.
- Additional comments were provided by the Source Control Section of BES, concerning discharge of stormwater, construction dewatering, and DEQ permitting.

Please see Exhibit E-1 for additional details.

**The Site Development Section of OPDR** provided comments regarding geotechnical concerns. Please see Exhibit E.4 for additional details.



The Oregon Department of Fish and Wildlife (ODFW) provided comments regarding riparian restoration and enhancement. See Exhibit E.7 for details.

- ODFW has commented on this project due to the proximity of the site to the Willamette River, which is a significant wildlife resource – particularly for fish rearing and migration.
- ODFW requests that the riparian buffer at least 75 feet wide within this site be restored to include a buffer of native vegetation along the river.
- ODFW suggests that concrete materials should not be placed within the riparian area.
- ODFW staff are available to provide technical review of grading and planting plans.
- Stormwater that will be directed to the Willamette River should be subject to appropriate management prior to discharge.

**Staff Response:** As discussed in the "Land Use History" section of this report, there have been several previous land use reviews that have impacted this site. LUR 01-00618 SU GW established the basic framework for development of the site by approving the division of the site into 12 separate lots, and establishing a network of pedestrian easements and public streets that will serve future development. That review also established a framework for designing and installing greenway improvements, including recreational trails and landscaping. No specific trail or riparian landscape design has been approved at this point, however.

As development is proposed on each lot, that development will be subject to additional greenway and design review to establish final landscaping plans. City Council's decision for LUR 01-00618 established specific guidelines that will be used to establish the final location/design of riverfront trails. The applicant has preliminarily proposed a 50-foot setback area, with existing concrete seawalls to remain. This design, however, is not final. The proposed grading contemplated with this review will not preclude riparian revegetation. The Portland Zoning Code has specific landscaping standards that must be met within the greenway setback area as the site develops.

**Neighborhood Review:** A "Notice of Proposal in Your Neighborhood" was mailed on June 28th, 2002. No written responses have been received from either the Neighborhood Association or notified property owners in response to the proposal.

## **ZONING CODE APPROVAL CRITERIA**

### **Greenway Review**

#### **33.440.310 Where Greenway Review Applies**

Unless exempted in 33.440.320 below, the following items are subject to greenway review:

- A. New development;
- B. Exterior alterations to development, including the removal of trees and shrubs and the application of herbicides;
- C. A change of use or development within or riverward of the greenway setback, where the use or development is no longer river-dependent or river-related;
- D. Changes to the land and structures in the water, including excavations and fills, bridges, and docks; and
- E. The dedication or extension of rights-of-way and any new development or improvements in rights-of-way when within the River Natural zone or within or riverward of the greenway setback.

**Findings:** Grading, excavation, and fill activities are considered exterior alterations, and changes to the land (identified under paragraphs B and E above). Therefore, Greenway Review is required.

#### **33.440.320 Exemptions from Greenway Review**

Greenway review is not required for any of the situations listed below. The situations listed below are still subject to the Greenway development standards. The situations are:

- A. As illustrated in Figure 440-2, alterations to development in the River Industrial zone that are outside of the areas listed below:
  - 1. The greenway setback;
  - 2. Riverward of the greenway setback;
  - 3. Within 50 feet landward of the greenway setback; or
  - 4. Within 50 feet of River Natural zoned land;
- B. Alterations to development landward of the greenway setback when not in or within 50 feet of River Natural zoned land, that either do not require a building permit or are valued at less than \$25,000;
- C. Changes to the interior of a building where there are no exterior alterations;
- D. Development of or changes to the greenway trail or access paths provided that all development standards including the standards of 33.272, Recreational Trails, are met. Development of or changes in a viewpoint or view corridor, as indicated on Map 440-1, will require greenway review;
- E. Activities allowed by the base zone which are usual and necessary for the use and enjoyment of an existing house, including the modification of existing accessory structures or facilities, and the construction of driveways;
- F. Excavations and fills under 50 cubic yards;
- G. The normal maintenance and repair necessary for an existing development;
- H. Dredging, channel maintenance, and the removal of gravel from rivers;
- I. Emergency procedures necessary for the safety or protection of property;
- J. The placement of up to 4 single piles, or 2 multiple-pile dolphins for each 100 feet of shoreline for an existing river-dependent or river-related use;
- K. Signs; and
- L. Removal of vegetation identified as nuisance plants on the Portland Plant List.

**Findings:** The site is not within the River Industrial zone. Grading, excavation, and fill activities require Site Development permits, and the proposed development is valued at more than \$25,000. The proposed activity is not an activity that is "usual or necessary for the enjoyment of an existing home". The proposed activity is not considered a change to the interior of a building. The proposed excavation/fill is over 50 cubic yards. The proposed work is not considered dredging, normal maintenance and repair, or an emergency procedure. New piles will not be placed within the river with this proposal. No signs are proposed. The proposed work does not involve removal of nuisance vegetation - as there is no significant vegetation on this site.

The proposed work does not fit within any of the above-described exemptions. Therefore, Greenway Review is required.

### **33.440.350 Greenway Approval Criteria**

- A. Generally. The approval criteria for a greenway review have been divided by location or situation. The divisions are not exclusive; a proposal must comply with all of the approval criteria which apply to the site. Requests for a greenway review will be approved if the review body finds that the applicant has shown that all of the appropriate approval criteria are met.

**Findings:** Each criterion is discussed below.

- B. For all greenway reviews. The Willamette Greenway Design Guidelines must be met for all greenway reviews.

**Findings:** There are 8 design guidelines, as follows:

- A - Relationship of Structures to the Greenway Setback Area;
- B - Public Access;
- C - Natural Riverbank and Riparian Habitat;
- D - Riverbank Stabilization;
- E - Landscape Treatments;
- F - Alignment of the Greenway Trail;

G – Viewpoints; and  
H – View Corridors.

Each of these guidelines is discussed below.

**Issue A. Relationship of Structures to the Greenway Setback Area:**

This issue *"applies to all but river-dependent and river-related industrial use applications for Greenway Approval, when the Greenway Trail is shown on the property in the Willamette Greenway Plan."* These guidelines call for complementary design and orientation of structures so that the greenway setback area is enhanced.

**Findings:** This application relates to site preparation, demolition, grading, excavation, and fill within the site. No new structures are proposed with this application. Therefore, this guideline is not applicable.

**Issue B. Public Access:** This issue *"applies to all but river-dependent and river-related industrial use applications for Greenway Approval, when the Greenway Trail is shown on the property in the Willamette Greenway Plan."* These guidelines call for integration of the Greenway Trail into new development, as well as the provision of features such as view points, plazas, or view corridors.

**Findings:** This application relates to site preparation, demolition, grading, excavation, and fill within the site. No other new development or pedestrian circulation systems are proposed or required. This site was subject to a separate subdivision application (LUR 01-00618 SU GW) that established the framework for future development of the site. This issue will be addressed with future land use reviews that will be required prior to the full development of the site. Therefore, this guideline is not applicable to this review.

**Issue C. Natural Riverbank and Riparian Habitat:** This issue *"applies to situations where the river bank is in a natural state, or has significant wildlife habitat, as determined by the wildlife habitat inventory."* These guidelines call for the preservation and enhancement of natural banks and areas with riparian habitat.

**Findings:** The riverbank at this location is not in a natural state. This site is identified as Site 15.11a and 15.11b within the Lower Willamette River Wildlife Habitat Inventory. This area received a "Rank V" designation due to low wildlife habitat values and because the site was dominated by heavy industrial marine terminal uses, and because the shoreline is significantly modified with wharves, piers, and engineered rock embankments. This guideline is not directly applicable to this site.

**Issue D. Riverbank Stabilization Treatments:** This issue *"applies to all applications for Greenway Approval."* This guideline promotes bank treatments for upland developments that conserve riparian habitat to the maximum extent practical.

**Findings:** This application relates to site preparation, demolition, grading, excavation, and fill within the site. No new riverbank stabilization treatments are proposed or required at this time. This site was subject to a separate subdivision application (LUR 01-00618 SU GW) that established the framework for future development of the site. The applicant has not proposed any change to the river bank with this application. Therefore, this guideline is not applicable to this review.

**Issue E. Landscape Treatments:** This issue *"applies to all applications for Greenway Approval which are subject to the landscape requirements of the Greenway chapter of Title 33 Planning and Zoning of the Portland Municipal Code."* These guidelines call for landscaping treatments which create a balance between the needs of both human and wildlife populations.

These guidelines call for landscaping treatments which create a balance between the needs of both human and wildlife populations:

1. **Landscape Treatment.** *The landscape treatment should create an environment which recognizes both human and wildlife use. Areas where limited human activity is expected should consider more informal riparian treatments. Areas of intense human use should consider a more formal landscape treatment. The top of bank may be considered a transition area between riparian treatment on the riverbank and a more formal treatment of the upland.*
2. **Grouping of Trees and Shrubs.** *In areas of more intense human use, trees and shrubs can be grouped. The grouping of trees and shrubs allows for open areas for human use, and has the secondary value of increasing the value of the vegetation for wildlife.*
3. **Transition.** *The landscape treatment should provide an adequate transition between upland and riparian areas, and with landscape treatments of adjacent properties.*

**Findings:** This application relates to site preparation, demolition, grading, excavation, and fill within the site. The attached plans illustrate the portions of the site where work will occur.

#### Code Requirements

Section 33.440.200 (Application of Greenway development Standards) states that "changes to the land or development" are subject to the greenway development standards, which include landscaping requirements. Although the subdivision approval generally envisions that landscaping would occur in conjunction with the development of buildings and other improvements on the site, the Zoning Code technically requires that landscaping occur with any change in the land. The grading plan proposed with this application constitutes a change in the land. Therefore, the proposed work would normally trigger greenway setback landscaping.

The greenway landscaping standards are found in section 33.440.230 of the Zoning Code. Those standards would specify the following landscaping in this context:

- One tree every 20 feet of river frontage;
- One shrub per 25 square feet of land riverward of the greenway setback; and
- Remaining areas riverward of the greenway setback must be vegetated with groundcovers;

This greenway review would normally consider the configuration of those plantings.

#### Context of the Proposed Work

This site was recently subject to a separate subdivision application (LUR 01-00618 SU GW) that sets in motion the framework for future development of the site. As part of the subdivision review, the purchaser of this site (Riverscape LLC) submitted a preliminary greenway planting plan showing the conceptual location of future plantings. That review, however, did not result in final approval of the landscape plans presented. The conceptual plans were reviewed during the subdivision review to determine general feasibility of the subdivision layout - rather than the specific feasibility of the planting plans submitted. During that review process, the Hearings Officer found that the landscaping proposed by Riverscape LLC can meet the requirements of this guideline. Council agreed with the Hearings Officer on appeal.

The Hearings Officer and City Council's recent decision on Riverscape LLC's subdivision proposal is relevant to the present review because it provides context for the eventual planned use of this site. The present review is occurring in order to consider one action within a series of actions leading to the full development of this site. The site preparation work proposed by the applicant is necessary before the site can be developed for residential uses.

#### Consideration of Guideline E

OPDR planning staff have advised both Riverscape LLC and the Port of Portland that a strict reading of the Zoning Code would require that greenway plantings be installed in conjunction

with site preparation. Having said that, however, planning staff recognize that planting at this stage in the development process may not be appropriate, for several reasons:

- This guideline states that landscape plantings should create an environment which recognizes both wildlife and human use. In order to design landscaping on the site that recognizes human use, it would be preferable to design that landscaping in conjunction with the design of the buildings and walkways that will eventually be built here.
- The guideline states that landscaping should provide for an adequate transition between upland and riparian areas. Given that the specific development designs of the abutting upland areas have not yet been reviewed, the present review does not provide adequate context to determine if that objective is met.

#### Greenway Planting Exceptions

The greenway setback landscaping standards include an exception that allows OPDR to waive planting requirements where it is found that they would substantially interfere with river-dependant or river-related use or development.

#### Conclusions

The proposed site preparation work is related to the decommissioning of the Port facilities that have stood on this site for many years. In addition, greenway trail planning is underway for this site, in connection with the subdivision review and final plat review process. The greenway trail is defined as river-related in the Zoning Code. Planting vegetation on the site at this time would substantially interfere with the future greenway trail corridor – because specific plans for the greenway corridor on this site are in the process of being developed, but are not complete. Further greenway trail planning is required, as outlined in the City Council order approving the tentative subdivision plan for this site. It would be inappropriate to require plantings until the specific greenway plans for the site are finalized as envisioned in the recent subdivision decision. Therefore, OPDR may waive compliance with 33.440.230 in this situation, for the proposed site preparation work. Landscaping standards will apply to subsequent development activity once the required greenway plans for the anticipated development have been approved.

This guideline is met, for the reasons explained above. The decision in this case will include a statement that the standards of 33.440.230 are waived for purposes of this specific site preparation project.

**Issue F. Alignment of Greenway Trail:** This issue *"applies to all applications for Greenway Approval with Greenway Trail shown on the property in the Willamette Greenway Plan."* These guidelines give direction in the proper alignment of the greenway trail and call for consideration of habitat protection, the physical features of the site and the necessity of maintaining year-round use of the trail.

**Findings:** This application relates to site preparation, demolition, grading, excavation, and fill within the site. This site was subject to a separate subdivision application (LUR 01-00618 SU GW) that established the framework for future development of the site, including dedication of required greenway trail easements on this site. Greenway trail dedication within this site was made a condition of approval of that separate land use review, LUR 01-00618 SU GW. Provided the greenway trail dedication is provided as set forth in LUR 01-00618 SU GW, this criterion will be met.

In addition, it should be noted that there is no impact from the proposed site preparation activity that would logically lead to a need for a trail dedication at this time (i.e. there is no legal nexus, and any such requirement would not be proportional to the impact of the proposed work). As a result, outside of the subdivision process occurring on this site, no trail can be required as a result of the proposed activity.

**Issue G. Viewpoints:** This issue *"applies to all applications for Greenway Approval with a public viewpoint shown on the property in the Willamette Greenway Plan and for all applications proposing to*

locate a viewpoint on the property". These guidelines provide direction about the features and design of viewpoints, as required at specific locations.

**Findings:** This application relates to site preparation, demolition, grading, excavation, and fill within the site. This site was subject to a separate subdivision application (LUR 01-00618 SU GW) that established the framework for future development of the site, including dedication of required greenway trail easements on this site. A public viewpoint is identified in the Greenway Plan abutting this site – under the Fremont Bridge, adjacent to Lot 1 of the approved subdivision. A Greenway Review and Design Review will be required for development of buildings within the site – and will include consideration of the relationship of those structures to the abutting viewpoint. Because greenway trail dedication within this site was already made a condition of approval of a separate land use review, and because no other new development is proposed at this time that would generate a need for a trail, this guideline is not applicable to this review.

**Issue H. View Corridors:** This issue *"applies to all applications for Greenway Approval with a view corridor shown on the property in the Willamette Greenway Plan"*. These guidelines provide guidance in protecting view corridors to the river and adjacent neighborhoods.

**Findings:** The Willamette Greenway Plan does not include a designated view corridor from or across this property. This issue is not applicable.

- B. River frontage lots in the River Industrial zone. In the River Industrial zone, uses that are not river-dependent or river-related may locate on river frontage lots when the site is found to be unsuitable for river-dependent or river-related uses. Considerations include such constraints as the size or dimensions of the site, distance or isolation from other river-dependent or river-related uses, and inadequate river access for river-dependent uses.**

**Findings:** This site is not within the River Industrial Zone. This criterion is not applicable.

- C. Development within the River Natural zone. The applicant must show that the proposed development, excavation, or fill within the River Natural zone will not have significant detrimental environmental impacts on the wildlife, wildlife habitat, and scenic qualities of the lands zoned River Natural. The criteria applies to the construction and long-range impacts of the proposal, and to any proposed mitigation measures. Excavations and fills are prohibited except in conjunction with approved development or for the purpose of wildlife habitat enhancement, riverbank enhancement, or mitigating significant riverbank erosion.**
- D. Development on land within 50 feet of the River Natural zone. The applicant must show that the proposed development or fill on land within 50 feet of the River Natural zone will not have a significant detrimental environmental impact on the land in the River Natural zone.**

**Findings:** This site is not within the River Natural Zone, or within 50 feet of a River Natural Zone. These criteria are not applicable.

- E. Development within the greenway setback. The applicant must show that the proposed development or fill within the greenway setback will not have a significant detrimental environmental impact on Rank I and II wildlife habitat areas on the riverbank. Habitat rankings are found in the Lower Willamette River Wildlife Habitat Inventory.**

**Findings:** This site does not contain or abut any Rank I or Rank II wildlife habitat areas on the riverbank. This criterion is not applicable.

- G. Development riverward of the greenway setback. The applicant must show that the proposed development or fill riverward of the greenway setback will comply with all**

of the following criteria:

1. The proposal will not result in the significant loss of biological productivity in the river;
2. The riverbank will be protected from wave and wake damage;
3. The proposal will not:
  - a. Restrict boat access to adjacent properties;
  - b. Interfere with the commercial navigational use of the river, including transiting, turning, passing, and berthing movements;
  - c. Interfere with fishing use of the river;
  - d. Significantly add to recreational boating congestion; and
4. The request will not significantly interfere with beaches that are open to the public.

**Findings:** No excavation, grading, or fill activities are proposed at this time within the water or on the banks of the river. Erosion control measures will be implemented throughout the site to ensure soil from the site does not erode into either the adjacent street, adjacent properties, or the river (see Erosion Control and De-watering Plans, sheets 7 and 8).

The existing river bank is protected from wave or wake damage either by a concrete sea wall or by rock riprap. No change in these existing bank configurations is proposed at this time.

The proposal will not interfere with boat access, navigation, or fishing - because no work is proposed within the river or on the river bank. Erosion control plans will ensure that fisheries resources will not be impacted by the proposed grading.

There are no public beaches within this site.

Therefore, the above-listed criteria have been met.

#### **Excavation and Fill Review**

##### **33.830.010 Purpose**

The regulations of this chapter are designed to ensure that excavations and fills:

- Will not cause any nuisance or safety problems or loss of development potential in residential and open space areas; and
- Will not have a significant negative impact on any natural resource values in these areas.

The technical and engineering concerns for excavations and fills are addressed by other Bureaus as part of the building permit process.

##### **33.830.050 Approval Criteria**

Requests for excavations and fills review will be approved if the review body finds that the applicant has shown that all of the following approval criteria are met:

- A. Potential on-site or off-site safety hazards will be mitigated, through the use of fencing or other measures;

**Findings:** The site is gated and fenced to prevent unauthorized entry. As noted in the "Land Use History" section of this report, this site is subject to ongoing environmental cleanup activities to remove contaminated soil from portions of the site. Because the proposed grading would occur in areas that contain contaminated soil, there would be a potential safety hazard unless environmental cleanup is completed first. A condition of approval is required to ensure all cleanup activity has been completed before grading occurs within the contaminated areas. With this condition, potential on-site hazards are mitigated. This criterion is met.



**B. The hours and total duration of operation will be limited to reduce the impacts on the neighborhood;**

**Findings:** Surrounding uses are primarily industrial and commercial in nature. Existing residential uses are over ½ mile away. Excavation and fill activities will occur during normal business hours, and in conformance with Title 18, Noise Control. This criterion can be met, with the condition that relevant noise control requirements are met (Title 18 of Portland City Code).

**C. Off-site dust and dirt will be kept to a reasonable minimum;**

**Findings:** As noted in the proposed Erosion Control and Dewatering Plan (Sheets 7 and 8), measures will be taken to reduce erosion that might occur as a result of remedial activities. Depending on weather conditions, dust is possible. Water will be applied to dampen soil if necessary to control dust. Adjacent roadway surfaces with tracked soil will be promptly cleaned. During the construction period, all erosion control facilities will be inspected daily. This criterion can be met, with the condition that the applicant obtains a Site Development Permit and complies with relevant Erosion and Sediment Control Regulations (Title 10 of Portland City Code).

**D. The final contours and surface condition of the site will not preclude future development for uses allowed in the base zone; and**

**Findings:** This site was subject to a separate subdivision application (LUR 01-00618 SU GW) that established the framework for future development of the site. The approved tentative subdivision plan envisions 12 lots within this site, to be accessed via a grid of public streets, pedestrian walkways, and a greenway trail. The proposed grading plan generally corresponds to the area that will become a public street if the approved tentative subdivision plan received final plat approval. The Portland Office of Transportation (PDOT) has reviewed the proposed grading and has no objections. The proposed grading will establish rough grades for the proposed public streets. Final street improvements will be subject to additional permit review by PDOT.

The Site Development Section of OPDR has reviewed the proposed grading plan and commented that the subdivision approval for this site requires the applicant (as a condition of approval) to carry out ground improvements based on the recommendations of a geotechnical report prepared by GRI (Exhibit G.4). This issue was discussed in the "Land Use History" section of this report. The condition of approval adopted by City Council required installation of ground improvements within each phase of the subdivision before any other development within that phase, unless otherwise approved by the Site Development Section.

The required ground improvements were described during the subdivision review as subsurface stone columns. They were to be installed on a portion of the site to address seismic hazards – particularly the danger of soil liquefaction during an earthquake, and the possibility of lateral soil movement resulting from that liquefaction. According to the site Development Section, the process of installing these subsurface improvements can cause significant localized vibration and possibly some settling. As a result, the Site Development Section believes that the timing/sequencing of the required ground improvements must be closely coordinated with the timing/sequencing of other site improvements. There is a concern that as more improvements are constructed on the site, it will become impractical to install the necessary ground improvements. If sewer and water infrastructure were installed before the necessary ground improvements, there is a concern that those facilities would be damaged during the subsequent ground improvement work.

The applicant has submitted additional geotechnical analysis to the Site Development Section of OPDR (Exhibit G.5, Supplemental Geotechnical Engineering Report, Dated September 16, 2002, GeoPacific Engineering, Inc). That report includes a recommendation that grading can safely proceed at this time, and that the grading will not preclude or significantly complicate later installation of the required ground improvements. The Site Development Section is currently reviewing the GeoPacific report. Site Development staff have stated that some site preparation work will most likely be feasible prior to installation of the ground improvements. Site Development staff recommend that this land use review be approved, provided that an initial

technical review of the GeoPacific report is completed before grading permits are issued. Based on that technical review, Site Development staff anticipate being able to reach an agreement with the applicant concerning the planned timing of required ground improvements. To address this issue, Site Development staff suggest conditions of approval consistent with the geotechnical requirements imposed by City Council with the preliminary subdivision approval. With these conditions carried forward, this criterion can be met.

- E. Disruptions to the natural drainage pattern will be mitigated, and will not result in mud or sediment entering the City's stormwater disposal system, rivers, creeks, sloughs, or other identified waterbodies.**

**Findings:** The site is paved with concrete and asphalt. There is little or no vegetation present. There will be no significant disruption of natural drainage patterns on the site. The proposed activities are subject to the requirements of the City's Erosion and Sediment Control Manual (per Title 10). Erosion control measures will include inlet protection, silt fencing or compost berms, a gravel construction entrance, a sedimentation pond, an infiltration basin, and post-construction hydroseeding. This criterion can met, with the condition that the applicant obtains a Site Development Permit and complies with relevant Erosion and Sediment Control Regulations (Title 10 of Portland City Code).

## **DEVELOPMENT STANDARDS**

Unless specifically required in the approval criteria listed above, this proposal does not have to meet the development standards in order to be approved during this review process. The plans submitted for a building or zoning permit must demonstrate that all development standards of Title 33 can be met, or have received an Adjustment or Modification via a land use review prior to the approval of a building or zoning permit.

## **CONCLUSIONS**

The applicant proposes to carry out demolition, mass grading, excavation, and fill in preparation for the eventual development of streets, infrastructure, and buildings.

A redevelopment proposal was the subject of a recent Subdivision and Greenway Review to establish a framework for future redevelopment of this site (LUR 01-00618 SU GW). Permits have already been issued for the demolition of existing buildings on the site, and for removal of contaminated soil. In addition, a Greenway Review has been approved for demolition of the large wharf on the river-facing edge of the site.

As described in this report, the proposed activity meets the applicable Greenway Review and Excavation/Fill Review approval criteria. Many of the approval criteria and guidelines are not applicable.

The landscaping requirements of 33.440.230 will not be applied to the proposed site preparation work, based on a finding that such landscaping would substantially interfere with the greenway corridor planning process that is underway for this site. This finding is made based on the Willamette Greenway Design Guidelines. Guideline E provides a basis for concluding that planting at this time would not be appropriate given that site planning for the expected subdivision is still underway. This issue is discussed in detail on page 9 of this report.

Conditions of approval require that:

- The applicant obtain necessary City permits and comply with relevant sections of the Erosion and Sediment Control Code, and Noise Control Codes applicable to construction activities (Titles 10 and 18);

- Environmental cleanup work be completed before the proposed grading is allowed on contaminated portions of the site; and
- Ground Improvement work related to the future development of this site proceed in a timely manner.

With these conditions, the proposed site preparation work should be approved.

#### **ADMINISTRATIVE DECISION**

**Approval of a Greenway Review and an Excavation/Fill Review** to allow demolition, mass grading, excavation, and fill on the site. Approved work is shown on Exhibits C.3 through C.9, signed and dated September 25, 2002. Approval is subject to conditions A through D below.

The landscaping requirements of 33.440.230 shall not apply to the proposed site preparation work.

- A. The applicant must obtain a Site Development Permit. A note shall be printed on all drawings submitted for permit approval stating that **"This permit is subject to the conditions imposed by the City of Portland in Case File No. LU 02-126821 GW EF"**
- B. Final erosion control plans must comply with all relevant provisions of Title 10 of Portland City Code (Erosion and Sediment Control Regulations). Approved activities must be carried out in conformance with Title 18 of Portland City Code (Noise Control).
- C. Within each of the contaminated soil areas identified on Exhibit C.5, the proposed grading, excavations, or fills may not occur until such time as: (1) soil removal activities described in the DEQ-approved Removal Action Plan for that area has been completed; (2) a corresponding Final Removal Action Report has been submitted to and accepted by DEQ (or equivalent documentation has been provided showing that no further action is required by DEQ in that area) and; (3) applicable City permits for the work described in the Removal Action Plan for that area has received final inspection approval by the City. Temporary fencing must be used to separate the proposed excavation, grading, and fill activities from the contaminated soil areas until the actions described in (1), (2), and (3) above have occurred.
- D. Ground improvements necessary to stabilize the site must be carried out in conformance with Condition C of LUR 01-00618 SU GW. Consistent with that condition, the Site Development Section of OPDR may allow the proposed site preparation, excavation, and fill to proceed prior to the installation of ground improvements provided that (1) based on technical review it is determined that the proposed work can be safely carried out in a manner that will not interfere with the feasibility of installing the required ground improvements and (2) unless otherwise approved by the Site Development Section, the applicant provides a performance guarantee and agreement for the ground improvements. The agreement shall specify the timing of the ground improvements.

Staff Planner: Eric Engstrom

Decision rendered by: Susan Feldman on September 25, 2002

Decision filed September 26, 2002;

Decision mailed September 27,

2002

This application was determined to be complete on June 28th, 2002.

**Note:** some of the information contained in this report was provided by the applicant. As required by Section 33.800.060 of the Portland Zoning Code, the burden of proof is on the applicant to show that the approval criteria are met. The Office of Planning and Development Review has independently reviewed the information submitted by the applicant and has included

Review has independently reviewed the information submitted by the applicant and has included this information only where the Office of Planning and Development Review has determined the information satisfactorily demonstrates compliance with the applicable approval criteria. This report is the decision of the Office of Planning and Development Review with input from other City and public agencies.

**Appealing this decision.** This decision may be appealed to the Hearings Officer, which will hold a public hearing. Appeals must be filed by **4:30 PM on October 11, 2002** at 1900 SW Fourth Ave. Appeals can be filed on the first floor in the Development Services Center until 3 p.m. After 3 p.m., appeals must be submitted to the receptionist at the front desk on the fourth floor. **An appeal fee of \$250 will be charged.** The appeal fee will be refunded if the appellant prevails. Recognized neighborhood associations and low-income individuals appealing a decision for their personal residence may qualify for an appeal fee waiver. Assistance in filing the appeal and information on fee waivers is available from OPDR in the Development Services Center. Fee waivers for low-income individuals must be approved prior to filing your appeal; please allow 3 working days for fee waiver approval. Fee waivers for neighborhood associations require a vote of the authorized body of your association. Please see the appeal form for additional information.

The file and all evidence on this case are available for your review by appointment only. Please contact the receptionist at 503-823-7967 to schedule an appointment. I can provide some information over the phone. Copies of all information in the file can be obtained for a fee equal to the cost of services. Additional information about the City of Portland, city bureaus, and a digital copy of the Portland Zoning Code is available on the internet at [www.ci.portland.or.us](http://www.ci.portland.or.us).

**Attending the hearing.** If this decision is appealed, a hearing will be scheduled, and you will be notified of the date and time of the hearing. The decision of the Hearings Officer is final; any further appeal must be made to the Oregon Land Use Board of Appeals (LUBA) within 21 days of the date of mailing the decision, pursuant to ORS 197.620 and 197.830. Contact LUBA at 550 Capitol St. NE, Salem, Oregon 97310 or phone 1-503-373-1265 for further information.

Failure to raise an issue by the close of the record at or following the final hearing on this case, in person or by letter, may preclude an appeal to the Land Use Board of Appeals (LUBA) on that issue. Also, if you do not raise an issue with enough specificity to give the Hearings Officer an opportunity to respond to it, that also may preclude an appeal to LUBA on that issue.

**Recording the final decision.** Before you proceed with your project, you are required to record the final Land Use Review decision with the Multnomah County Recorder. A building or zoning permit will be issued only after the final decision is recorded. The final decision may be recorded on or after **October 12, 2002 – the day following the last day to appeal.**

The applicant, builder, or a representative may record the final decision as follows:

- **By Mail:** Send the two recording sheets (sent in separate mailing) and the final Land Use Review decision with a check made payable to the Multnomah County Recorder to: Multnomah County Recorder, P.O. Box 5007, Portland OR 97208. The recording fee is identified on the recording sheet. Please include a self-addressed, stamped envelope.
- **In Person:** Bring the two recording sheets (sent in separate mailing) and the final Land Use Review decision with a check made payable to the Multnomah County Recorder to the County Recorder's office located at 501 SE Hawthorne Boulevard, #158, Portland OR 97214. The recording fee is identified on the recording sheet.

For further information on recording, please call the County Recorder at 503-988-3034.

**Expiration of this approval.** This decision expires three years from the date the final decision is rendered unless:

- A building permit has been issued, or
- The approved activity has begun, or

- In situations involving only the creation of lots, the land division has been recorded.

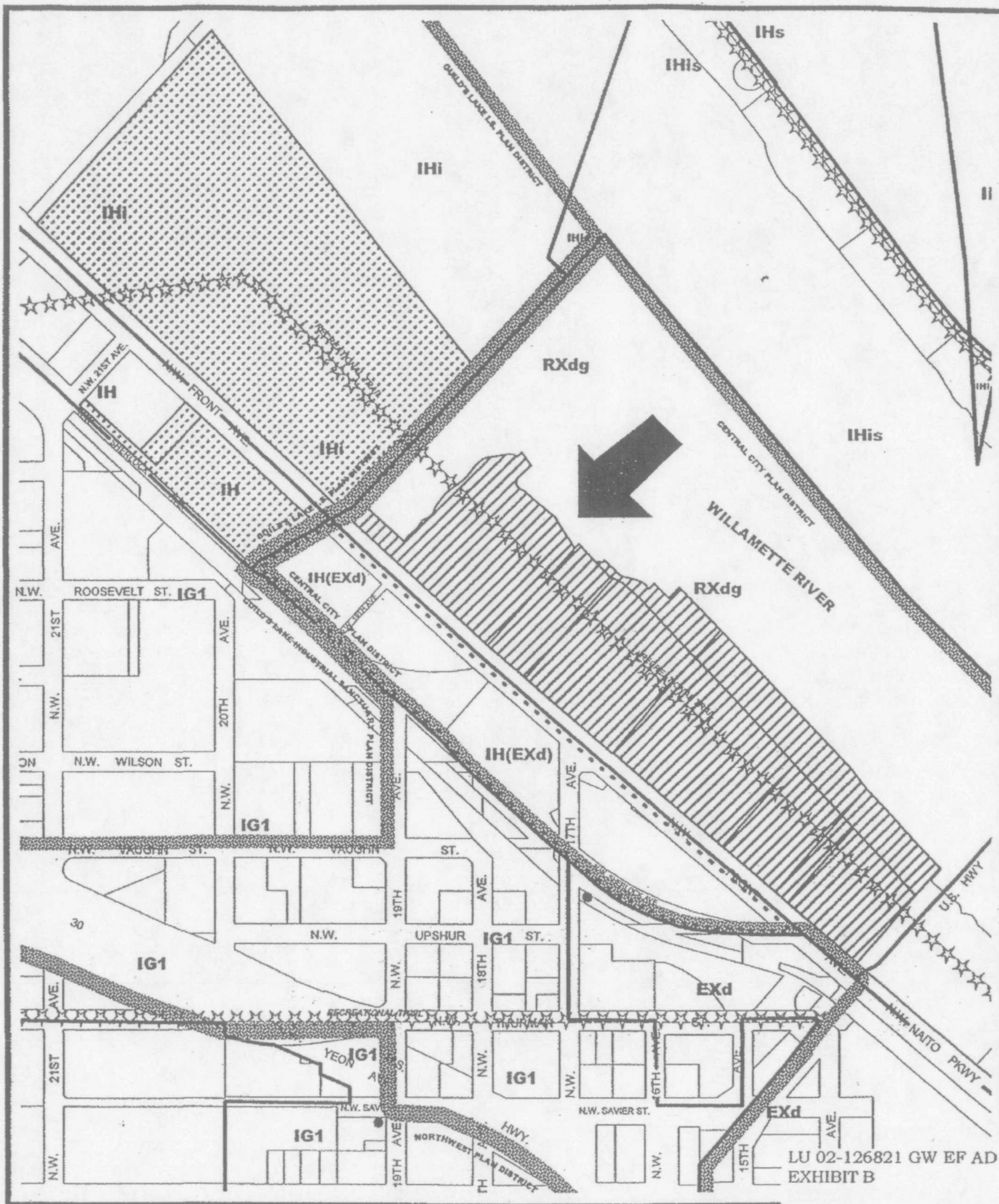
**Applying for your permits.** A building permit, occupancy permit, or development permit must be obtained before carrying out this project. At the time they apply for a permit, permittees must demonstrate compliance with:

- All conditions imposed here.
- All applicable development standards, unless specifically exempted as part of this land use review.
- All requirements of the building code.
- All provisions of the Municipal Code of the City of Portland, and all other applicable ordinances, provisions and regulations of the City.

**EXHIBITS**  
**NOT ATTACHED UNLESS INDICATED**

- A. Applicant's Statements
  - 1. Narrative, dated June 17<sup>th</sup>, 2002
- B. Zoning Map (attached)
- C. Plans/Drawings:
  - 1. Cover Sheet
  - 2. Existing Conditions
  - 3. Demolition Plan - NW
  - 4. Demolition Plan - SE
  - 5. Contaminated Soil Excavation Plan
  - 6. Mass Excavation and Grading Plan (attached)
  - 7. Erosion Control and Dewatering Plan (attached)
  - 8. Erosion Control Details and Sections
  - 9. Dewatering Details and Sections
- D. Notification information:
  - 1. Mailing list
  - 2. Mailed notice
- E. Agency Responses:
  - 1. Bureau of Environmental Services
  - 2. Bureau of Transportation Engineering and Development Review
  - 3. Fire Bureau
  - 4. Site Development Review Section of OPDR
  - 5. Water Bureau
  - 6. Parks and Recreation
  - 7. Oregon Department of Fish and Wildlife
- E. Correspondence
  - 1. Letter to Larry Porter, dated July 26<sup>th</sup>, 2002
  - 2. Request to place case on hold, dated July 31, 2002
- G. Other:
  - 1. Original LU Application
  - 2. Site History Research
  - 3. Removal Action Work Plan, Terminal One South (Hart Crowser, dated March 26, 2002)
  - 4. Geotechnical report submitted with subdivision application (GRI, dated January 18<sup>th</sup>, 2001).
  - 5. Supplemental Geotechnical Engineering Report Evaluation and Mitigation of Seismic/Soil Liquefaction Hazard Riverscape - Terminal 1 South Redevelopment Portland Oregon, dated September 16, 2002, GeoPacific Engineering, Inc.

**The Office of Planning and Development Review is committed to providing equal access to information and hearings. If you need special accommodations, please call 503-823-7967 (TTY 503-823-6868).**





33-09128921-20-07

# EROSION CONTROL NOTES

- 1) EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO ANY EXCAVATION OR GRADING WORK.
- 2) EROSION CONTROL MEASURES SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD AND REMOVED UPON COMPLETION OF THE PROJECT.
- 3) THE EROSION CONTROL MEASURES SHALL BE DESIGNED TO PREVENT SOIL EROSION AND TO MAINTAIN THE STABILITY OF THE EXCAVATION SLOPES.
- 4) THE EROSION CONTROL MEASURES SHALL BE DESIGNED TO PREVENT SOIL EROSION AND TO MAINTAIN THE STABILITY OF THE EXCAVATION SLOPES.
- 5) THE EROSION CONTROL MEASURES SHALL BE DESIGNED TO PREVENT SOIL EROSION AND TO MAINTAIN THE STABILITY OF THE EXCAVATION SLOPES.
- 6) THE EROSION CONTROL MEASURES SHALL BE DESIGNED TO PREVENT SOIL EROSION AND TO MAINTAIN THE STABILITY OF THE EXCAVATION SLOPES.
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- 12) THE EROSION CONTROL MEASURES SHALL BE DESIGNED TO PREVENT SOIL EROSION AND TO MAINTAIN THE STABILITY OF THE EXCAVATION SLOPES.
- 13) THE EROSION CONTROL MEASURES SHALL BE DESIGNED TO PREVENT SOIL EROSION AND TO MAINTAIN THE STABILITY OF THE EXCAVATION SLOPES.
- 14) THE EROSION CONTROL MEASURES SHALL BE DESIGNED TO PREVENT SOIL EROSION AND TO MAINTAIN THE STABILITY OF THE EXCAVATION SLOPES.
- 15) THE EROSION CONTROL MEASURES SHALL BE DESIGNED TO PREVENT SOIL EROSION AND TO MAINTAIN THE STABILITY OF THE EXCAVATION SLOPES.

## NOTES:

- 1) DRAINAGE PUMPS AND DISCHARGE PIPING TO BE DUL' NED AND INSTALLED BY CONTRACTOR.
- 2) CONTRACTOR SHALL COMPLETE LINE SEGMENTATION - 2ND WITH A SINGLE SHEET OF 24 IN. POLYETHYLENE SEGMENTATION.
- 3) CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION, OPERATION, AND MAINTENANCE OF THE SEGMENTATION POND AND STORMWATER INFILTRATION SYSTEM.

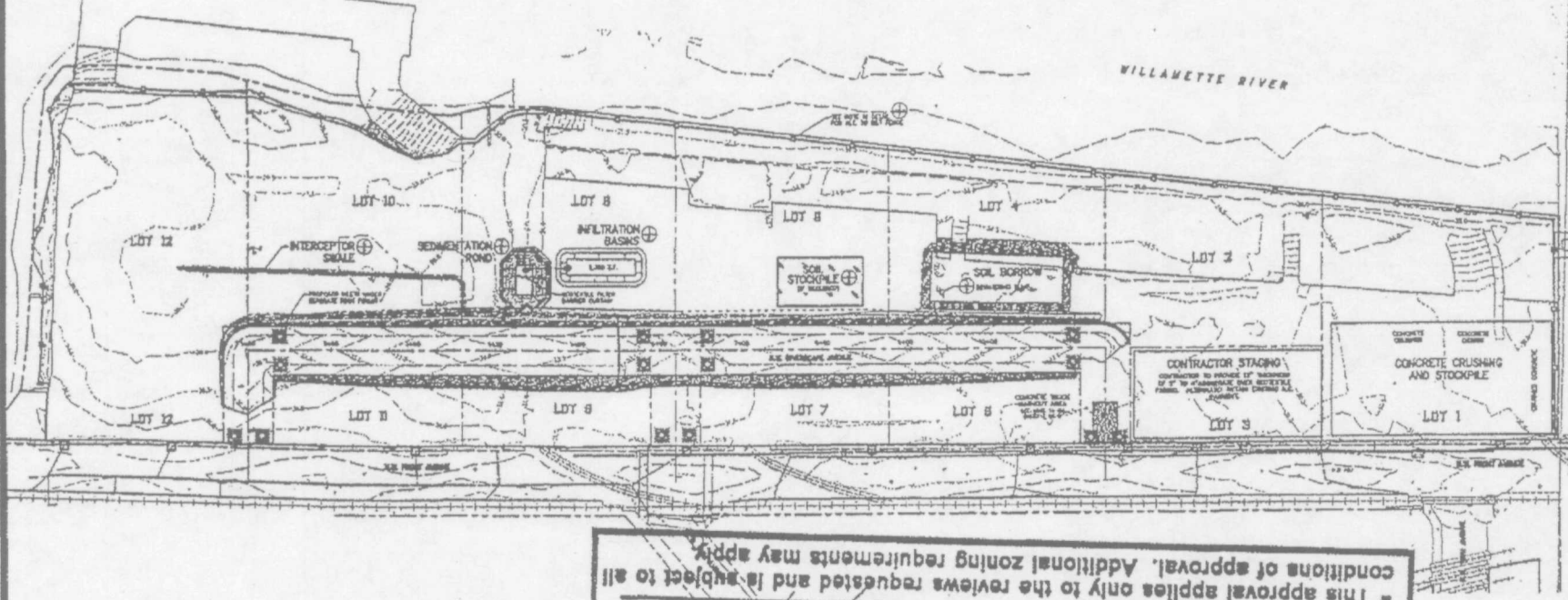
AS REQUIRED BY O.E.S. THE DESIGNATED EROSION CONTROL AND POLLUTION CONTROL INSPECTOR SHALL BE:

LEE CHROMOLITE  
DAVID EVANS AND ASSOCIATES, INC.  
2829 S.W. CORDELL AVENUE  
PORTLAND, OREGON 97201  
503-223-4443

NO MORE SHALL OCCUR EROSION FROM TOP OF EASE OR SEWALL UNDER THIS POINT

## SHEET LEGEND

|                       |   |
|-----------------------|---|
| MONITORING WELL (MW)  | CONCENTRATED STORM DRAINAGE FLOW                                |
| PIEZOMETER (PI)       | INTERCEPTION DRAIN OR SINK                                      |
| RECOVERY WELL (RW)    | CONCENTRATED DITCH  |
| WELLS TO BE PROTECTED | DISCHARGE PIPING  |
| IMPERVIOUS COVER      | SINGLE SEDIMENT POND  |
| GRAVEL SURFACING      | INLET PROTECTION  |
|                       | SLASH APRON ENERGY DISSIPATOR                                   |
|                       | TEMPORARY DRAINAGE OR SINK                                      |
|                       | SECURITY FENCE (BY CONTRACTOR AT BASEMENT EXCAVATION LOCATIONS) |
|                       | CLEARING AND GRADING LIMITS                                     |

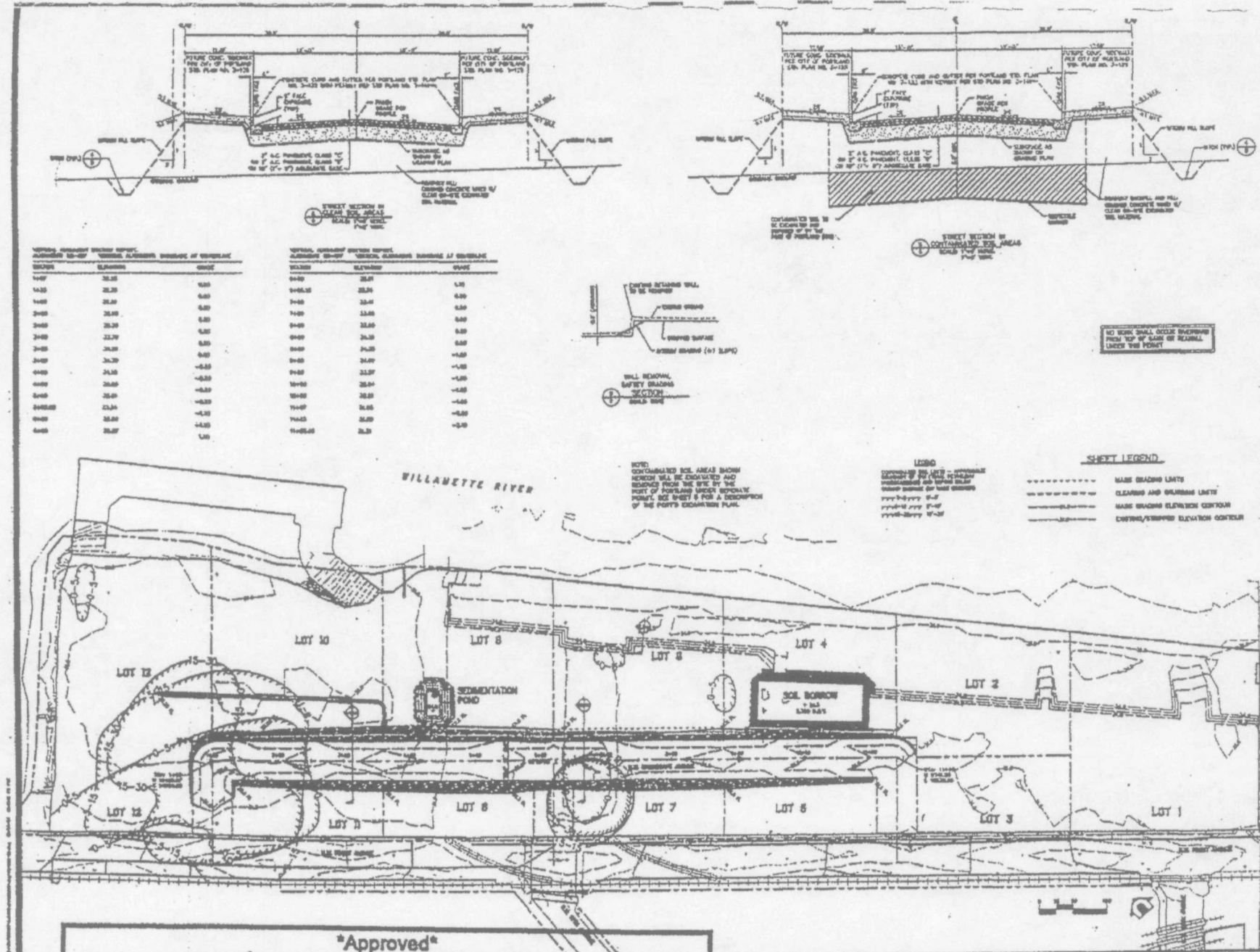


Approved: *W.C. ERE* Date: 9/25/03

City of Portland - Office of Planning and Development Review

\* This approval applies only to the reviews requested and is subject to all conditions of approval. Additional zoning requirements may apply.

LU 02-126821GW EF



**\*Approved\***  
 City of Portland - Office of Planning and Development Review  
 Planner: W. E. ERE Date: 9/25/02  
 \* This approval applies only to the reviews requested and is subject to all conditions of approval. Additional zoning requirements may apply.

# Carlson Testing, Inc.

**Main Office**  
P.O. Box 23814  
Tigard, Oregon 97281  
Phone (503) 684-3460  
FAX (503) 684-0954

**Salem Office**  
4060 Hudson Ave., NE  
Salem, OR 97301  
Phone (503) 589-1252  
FAX (503) 589-1309

**Bend Office**  
P.O. Box 7918  
Bend, OR 97708  
Phone (541) 330-9155  
FAX (541) 330-9163

## Moisture - Density Relationship

**Client:** Hart Crowser - Levi Fernandes

**Project:** Terminal 1 South

**Material Type:** Dredge Sand

08/27/02

**Job Number:** T0201376

**Location:** Off- Site Dredge Stockpile #2

**Test Method:** ASTM D-1557 B, C-136, D-2216

**Date Sampled:** 08/09/02

**Sample Method:** ASTM D-75

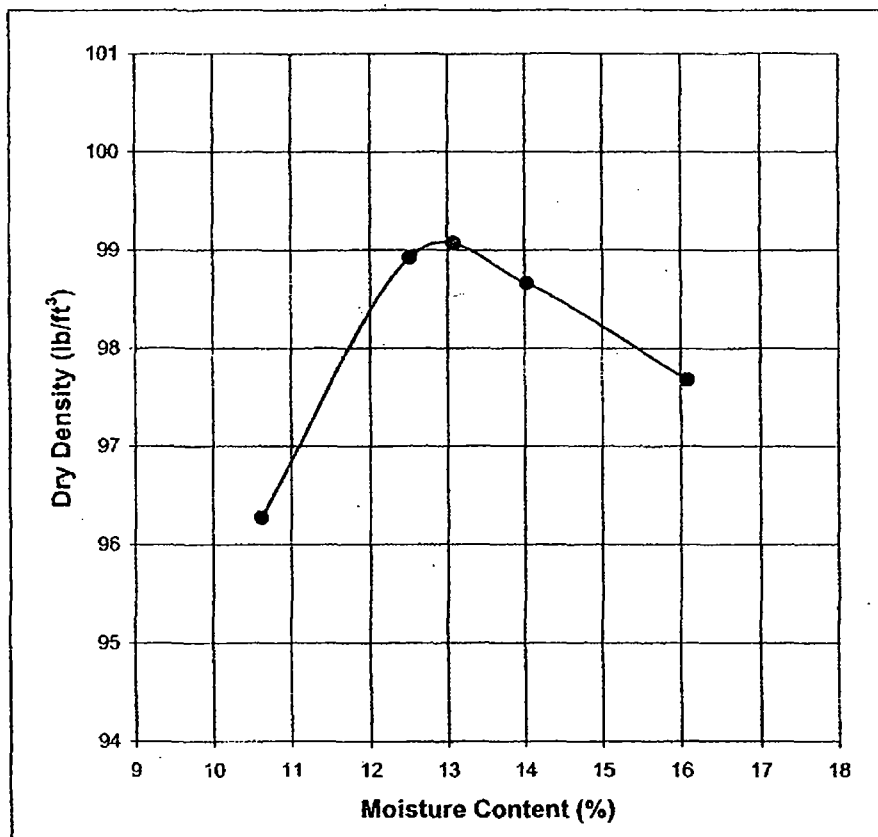
**Date Tested:** 08/14/02

**Preparation Method:** Moist

**Oversized Material:** Removed

**Compacting Method:** Manual

**Hammer Type:** Circular



HART CROWSER, INC

AUG 30 2002

Portland Office

Zero Air Voids Line = 2.600

**Optimum Moisture:** 13.1%

**Max. Dry Density:** 99.1 lbs/ft³

**Percent Passing 3/8" Sieve:** 100.0%

cc:

Reviewed By: 

Our reports pertain to the material tested /inspected only. Information contained herein is not to be reproduced, except in full, without prior authorization.

POPT1S602787

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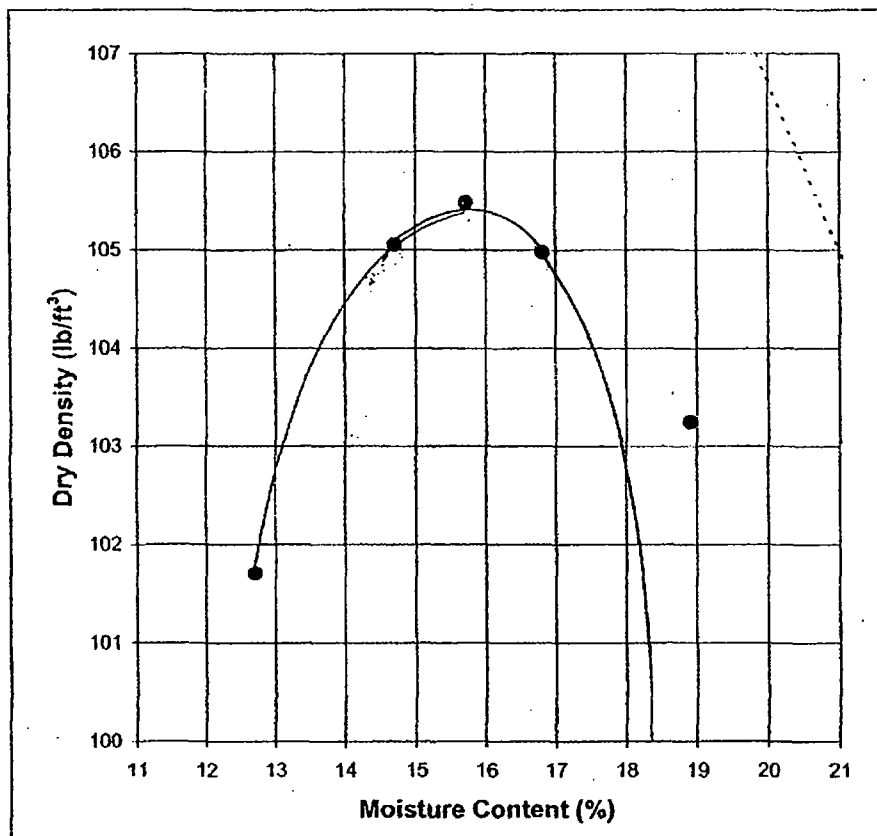
## Moisture - Density Relationship

**Client:** Hart Crowser - Levi Fernandes  
**Project:** Terminal 1 South  
**Material Type:** Clayey Sand

**Job Number:** T0201376  
**Location:** On-Site (Area 3)

08/27/02

|                            |                              |                            |           |
|----------------------------|------------------------------|----------------------------|-----------|
| <b>Test Method:</b>        | ASTM D-1557 C, C-136, D-2216 | <b>Date Sampled:</b>       | 08/09/02  |
| <b>Sample Method:</b>      | ASTM D-75                    | <b>Date Tested:</b>        | 08/14/02  |
| <b>Preparation Method:</b> | Moist                        | <b>Oversized Material:</b> | Removed   |
| <b>Compacting Method:</b>  | Mechanical                   | <b>Hammer Type:</b>        | Pie Wedge |



Zero Air Voids Line = 2.600

**Optimum Moisture:** 15.7% **Max. Dry Density:** 105.5 lbs/ft³  
**Percent Passing 3/4" Sieve:** 99.6%

cc:

Reviewed By: 

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POPT1S602788

## MOISTURE / DENSITY RELATIONSHIP

|                                   |   |   |
|-----------------------------------|---|---|
| PROJECT: <u>Terminal 1 south</u>  | SAMPLE METHOD: <u>D-75</u>                          | BILL CODE: <u>200</u>                         |
| CLIENT: <u>Avant crowder</u>      | SAMPLED BY: <u>Client</u>                           | DATE: <u>8-9</u>                              |
| SOURCE: <u>UNKNOWN</u>            | SAMPLED FROM: <u>Port of Portlan - Stockpile #2</u> |   |
| MATERIAL TYPE: <u>Dredge Sand</u> | DATE TEST STARTED: <u>8/14</u>                      | DATE FINISHED: <u>8/14</u>                    |
| DATE REC'V. IN LAB: <u>8-9</u>    | LAB LOG #: <u>1276 #2</u>                           | TESTED BY: <u>[Signature]</u>                 |
| BALANCE #: <u>757</u>             | MOLD #: <u>2647</u>                                 | RAMMER # <u>266</u> SCALP SIEVE #: <u>162</u> |

|                   |                     |                  |                     |
|-------------------|---------------------|------------------|---------------------|
| METHOD OF TESTING |                     |                  |                     |
| AASHTO T99 _____  | AASHTO T180 _____   | ASTM D698 _____  | ASTM D1557 <u>A</u> |
| METHOD "A" _____  | METHOD "B" <u>A</u> | METHOD "C" _____ | METHOD "D" _____    |

OPTIMUM MOISTURE 13.1 % MAXIMUM DRY DENSITY 98.9 PCFADJUSTED MAXIMUM DRY DENSITY Ø PCF

| DATA POINT NUMBER                  | 1     | 2     | 3     | 4     | 5 | 6 | 7 |
|------------------------------------|-------|-------|-------|-------|---|---|---|
| A. WEIGHT OF MOLD + WET SOIL       | 12.81 | 12.97 | 13.01 | 13.04 |   |   |   |
| B. WEIGHT OF MOLD                  | 9.26  | 9.26  | 9.26  | 9.26  |   |   |   |
| C. WEIGHT OF WET SOIL (A - B)      | 3.55  | 3.71  | 3.75  | 3.78  |   |   |   |
| D. WET DENSITY (C x 30 or 13.33)   | 106.5 | 111.3 | 112.5 | 113.4 |   |   |   |
| E. DRY DENSITY (D / 100 + 1) x 100 | 96.3  | 98.9  | 98.7  | 97.7  |   |   |   |
| F. WET WEIGHT OF SOIL              | 500   | 500   | 500   | 500   |   |   |   |
| G. DRY WEIGHT OF SOIL              | 452.0 | 444.4 | 438.5 | 430.7 |   |   |   |
| H. WEIGHT OF WATER (F - G)         | 48.0  | 55.6  | 61.5  | 69.3  |   |   |   |
| I. % MOISTURE (H / G) x 100        | 10.6  | 12.5  | 14.0  | 16.4  |   |   |   |

PREPARATION METHOD: Moist or Dry  
 COMPACTIVE EFFORT: Manual or Mechanical  
 PERCENT PASSING 3/4" 3/8 #4 Sieve: 100 %  
 OVERSIZED MATERIAL: Removed or Replaced  
 COMPACTION RAMMER: Circular or Pie Wedge

|                                       |  |
|---------------------------------------|--|
| B = WEIGHT OF SSD SAMPLE              |  |
| 1. WEIGHT OF BASKET IN WATER          |  |
| 2. WEIGHT OF BASKET IN WATER          |  |
| C = WEIGHT OF SAMPLE IN WATER (1 - 2) |  |
| 3. WEIGHT OF PAN + OVEN DRY AGG.      |  |
| 4. WEIGHT OF PAN                      |  |
| A + WEIGHT OF OVEN DRY AGG (3 - 4)    |  |
| (B - C)                               |  |
| BULK SPECIFIC GRAVITY = A / (B - C)   |  |

(Adjusted Maximum Density Calculation)

ASTM  
 $\frac{\text{max. density} \times \text{sp. gr.} \times 62.42}{(\text{max. den.} \times \% \text{ oversize}) + (\text{sp. gr.} \times 62.42 \times \% \text{ passing})}$

AASHTO  
 $(1.00 - P_c) \text{ Max. Density} + 0.9 [P_c (\text{Sp. Gr.} \times 62.4)]$

Tested in accordance with stated procedures with equipment in current calibration by: Edward Wood

Reviewed By: \_\_\_\_\_

# HART CROWSER

Earth and Environmental Technologies

Job #:

15230-04

Page: 2 of 2

## DAILY FIELD REPORT

|              |                 |               |
|--------------|-----------------|---------------|
| Project Name | Client or Owner | Permit Number |
|--------------|-----------------|---------------|

|  |   |                                 |                    |
|--|---|---------------------------------|--------------------|
| General Location of Work                                       | Owner or Client's Representative                        | Date<br>8/24/02                 | Day of Week<br>Sat |
| General Contractor   | Grading Contractor<br>E. D. Dwyer                       | Project Engineer                |                    |
| Type of Work<br>Grading / Backfill                             | Grading Contractor's Superintendent or Foreman<br>Roger | Supervisor                      |                    |
| Source and Description of Fill Material                        | Weather<br>Sunny  | Technician<br>Frank Sharpefield |                    |
| Key Persons Contacted (Civil Engr. Architect, Developer, etc.) |   |                                 |                    |

| Field Testing |                 |           |                        |                    |                          |                |                                |         |           |
|---------------|-----------------|-----------|------------------------|--------------------|--------------------------|----------------|--------------------------------|---------|-----------|
| Test #        | Test Location   | Elevation | Dry Density lbs/cu.ft. | Moisture Content % | % of Maximum Dry Density | Comp Curve No. | Maximum Dry Density Lbs/cu.ft. | Optimum | Comments  |
| 1             | 1st Lift        | +20'      | 93.3                   | 17.1               | 94.4                     |                | 98.9                           | 13.1    | Spec. 92% |
| 2             | " "             | +20'      | 95.0                   | 16.8               | 96.1                     |                |                                |         |           |
| 3             | " "             | +20'      | 95.3                   | 19.0               | 96.4                     |                |                                |         |           |
| 4             | 2nd Lift area 3 | +16'      | 93.2                   | 16.8               | 94.3                     |                |                                |         |           |
| 5             | " " "           | +16'      | 92.2                   | 14.8               | 93.2                     |                |                                |         |           |
| 6             | " " "           | +16'      | 92.6                   | 14.2               | 93.7                     |                |                                |         |           |
| 7             | 2nd Lift area 2 | +16'      | 96.7                   | 17.8               | 97.8                     |                |                                |         |           |
| 8             | " " "           | +16'      | 95.5                   | 18.6               | 96.6                     |                |                                |         |           |
| 9             | " " "           | +16'      | 97.9                   | 20.1               | 99.0                     |                |                                |         |           |
|               |                 |           |                        |                    |                          |                |                                |         |           |
|               |                 |           |                        |                    |                          |                |                                |         |           |
|               |                 |           |                        |                    |                          |                |                                |         |           |
|               |                 |           |                        |                    |                          |                |                                |         |           |
|               |                 |           |                        |                    |                          |                |                                |         |           |

Describe Equipment used for Hauling, Spreading, Watering, Conditioning and Compacting

Notes (Describe work completed during the day, any problems and their solution)

Contractor stopped for evening with approximately 5<sup>th</sup> ft of imported sand placed and compacted. Contractor will not work tomorrow but will be back Monday morning to continue placing fill. Julie (me) will be on project to observe and test Contractor work.

All tests taken today showed good compaction and results meet or exceed project specifications.

Used on project today: Kobelco 210 Tractor, Ingersoll-Rand Vibratory Steel drum roller, and a D-6 cat.

Five Centerpointe Drive, Suite 240  
Lake Oswego, Oregon 97035  
Fax 503.620.6918  
Tel 503.620.7284

Report by

Frank H. Sharpefield

Form #: HC Geo.02 (10/99)

POPT1S602790

## Earth and Environmental Technologies

15230-04

Page: of

|                                     |                        |               |
|-------------------------------------|------------------------|---------------|
| Project Name<br>Terminal 1 Parcel 3 | Client or Owner<br>PDP | Permit Number |
|-------------------------------------|------------------------|---------------|

|  |  |  |  |                                      |                           |
|--|--|--|--|--------------------------------------|---------------------------|
| General Location of Work<br><i>Port land</i>           |  | Owner or Client's Representative                               |  | Date<br><i>8/26/02</i>               | Day of Week<br><i>Mon</i> |
| General Contractor                                     |  | Grading Contractor<br><i>Eudaly</i>                            |  | Project Engineer                     |                           |
| Type of Work<br><i>Growing / Backfill / Compaction</i> |  | Grading Contractor's Superintendent or Foreman<br><i>Roger</i> |  | Supervisor                           |                           |
| Source and Description of Fill Material                |  |  | Weather<br><i>Overcast</i><br><del>Sunny</del>                 | Technician<br><i>Frank Sheffield</i> |                           |
|  |  |  | Key Persons Contacted (Civil Engr. Architect, Developer, etc.) |                                      |                           |

[illegible]

**Describe Equipment used for Hauling, Spreading, Watering, Conditioning and Compacting**

**Notes (Describe work completed during the day, any problems and their solution)**

Equipment on-site: Kobelco 260 trackhoe, Ingersoll Rand vibratory smooth drum roller and D-6 cat

Port Engineering prepared revised backfilling scheme. All areas except Areas 2 and 3 will be backfilled to within 3 feet from existing ground surface with tapering slopes at 2:1. Along Front Ave a 5' foot wide bench will be constructed with slopes tapering into Areas 2 and 3 at 2:1. Areas 2 and 3 will be backfilled to within 5 feet from existing surface.

Contractor in progress in putting 3<sup>rd</sup> lift (up to 4 ft bgs) when notified.

**Five Centerpointe Drive, Suite 240  
Lake Oswego, Oregon 97035  
Fax 503.620.6918  
Tel 503.620.7284**

**Report by**

Form #: HC Geo.02 (10/99)

POPT1S602791



**APPENDIX D  
LETTER OF ACCEPTANCE,  
LOAD SUMMARY, AND DISPOSAL MANIFESTS**



**APPENDIX D**  
**LETTER OF ACCEPTANCE**  
**LOAD SUMMARY AND DISPOSAL MANIFESTS**

This appendix includes a letter addressed to Eudaly Bros. stating acceptance for the disposal of petroleum hydrocarbon contaminated soil from the Terminal 1 South Parcel 2 (Area B) Site at the Coffin Butte landfill in Corvallis, Oregon. This appendix also includes copies of the transportation manifests for the disposal of petroleum hydrocarbon contaminated soil. Table D-1 presents a summary of the truckloads of soil transported to the landfill.

**Table D-1 - Load Summary**  
**Terminal 1 South Removal Action**  
**Portland, Oregon**

| Ticket Number | Date      | Weight In tons |
|---------------|-----------|----------------|
|               |           |                |
| 558468        | 9-Aug-02  | 32.45          |
| 558473        | 9-Aug-02  | 33.25          |
| 558506        | 9-Aug-02  | 33.13          |
| 558507        | 9-Aug-02  | 32.27          |
| 558510        | 9-Aug-02  | 31.61          |
| 558527        | 9-Aug-02  | 34.35          |
| 558528        | 9-Aug-02  | 34.77          |
| 558586        | 9-Aug-02  | 33.36          |
| 558594        | 9-Aug-02  | 33.16          |
| 558645        | 9-Aug-02  | 32.17          |
| 558647        | 9-Aug-02  | 34.70          |
| 558658        | 9-Aug-02  | 34.60          |
| 558659        | 9-Aug-02  | 34.37          |
| 558665        | 9-Aug-02  | 35.77          |
| 558711        | 10-Aug-02 | 32.89          |
| 558712        | 10-Aug-02 | 34.03          |
| 558714        | 10-Aug-02 | 32.20          |
| 558717        | 10-Aug-02 | 33.94          |
| 558728        | 10-Aug-02 | 30.03          |
| 558727        | 10-Aug-02 | 32.05          |
| 558730        | 10-Aug-02 | 36.59          |
| 558731        | 10-Aug-02 | 35.00          |
| 558732        | 10-Aug-02 | 34.81          |
| 558785        | 10-Aug-02 | 32.33          |
| 558799        | 10-Aug-02 | 32.29          |
| 558801        | 10-Aug-02 | 34.09          |
| 558827        | 10-Aug-02 | 34.49          |
| 558829        | 10-Aug-02 | 31.08          |
| 558855        | 10-Aug-02 | 35.21          |
| 558857        | 10-Aug-02 | 35.79          |
| 558872        | 10-Aug-02 | 29.12          |
| 558914        | 10-Aug-02 | 33.63          |
| 558930        | 10-Aug-02 | 36.57          |
| 559216        | 12-Aug-02 | 33.28          |
| 559229        | 12-Aug-02 | 33.92          |
| 559234        | 12-Aug-02 | 33.69          |
| 559236        | 12-Aug-02 | 34.80          |
| 559240        | 12-Aug-02 | 33.93          |
| 559306        | 12-Aug-02 | 33.67          |
| 559324        | 12-Aug-02 | 33.90          |
| 559337        | 12-Aug-02 | 35.14          |
| 559342        | 12-Aug-02 | 34.54          |
| 559432        | 12-Aug-02 | 34.53          |
| 558440        | 12-Aug-02 | 34.22          |
| 559449        | 12-Aug-02 | 34.77          |
| 559453        | 12-Aug-02 | 35.30          |
| 559543        | 13-Aug-02 | 31.62          |
| 560275        | 15-Aug-02 | 29.85          |
| 560450        | 16-Aug-02 | 32.79          |
| 560456        | 16-Aug-02 | 31.90          |
| 560459        | 16-Aug-02 | 35.01          |
| 560470        | 16-Aug-02 | 34.70          |
| 560472        | 16-Aug-02 | 34.89          |
| 560564        | 16-Aug-02 | 34.23          |
| 560565        | 16-Aug-02 | 33.42          |
| 560577        | 16-Aug-02 | 32.93          |
| 560582        | 16-Aug-02 | 34.66          |
| 560609        | 16-Aug-02 | 34.63          |
| 560611        | 16-Aug-02 | 35.11          |
| 560681        | 16-Aug-02 | 39.33          |
| 560691        | 16-Aug-02 | 33.38          |
| 560699        | 16-Aug-02 | 32.48          |
| 560703        | 16-Aug-02 | 31.09          |
| 560704        | 16-Aug-02 | 34.01          |
| 560741        | 16-Aug-02 | 34.69          |
| 560742        | 16-Aug-02 | 34.75          |

**Table D-1 - Load Summary**  
**Terminal 1 South Removal Action**  
**Portland, Oregon**

| Ticket Number | Date      | Weight in tons |
|---------------|-----------|----------------|
|               |           |                |
| 560769        | 17-Aug-02 | 33.41          |
| 560770        | 17-Aug-02 | 32.63          |
| 560772        | 17-Aug-02 | 31.76          |
| 560775        | 17-Aug-02 | 33.27          |
| 560776        | 17-Aug-02 | 34.41          |
| 560782        | 17-Aug-02 | 36.99          |
| 560783        | 17-Aug-02 | 34.61          |
| 560784        | 17-Aug-02 | 34.82          |
| 560867        | 17-Aug-02 | 34.09          |
| 560869        | 17-Aug-02 | 33.47          |
| 560874        | 17-Aug-02 | 31.96          |
| 560891        | 17-Aug-02 | 33.44          |
| 560892        | 17-Aug-02 | 34.30          |
| 560898        | 17-Aug-02 | 31.93          |
| 560899        | 17-Aug-02 | 34.36          |
| 560900        | 17-Aug-02 | 34.92          |
| 561593        | 20-Aug-02 | 33.02          |
| 561671        | 20-Aug-02 | 34.61          |
| 561675        | 20-Aug-02 | 33.43          |
| 561723        | 20-Aug-02 | 37.86          |
| 561809        | 20-Aug-02 | 33.92          |
| 561819        | 20-Aug-02 | 34.05          |
| 561825        | 20-Aug-02 | 34.02          |
| 561832        | 20-Aug-02 | 32.49          |
| 561913        | 21-Aug-02 | 31.83          |
| 561922        | 21-Aug-02 | 34.31          |
| 561933        | 21-Aug-02 | 34.63          |
| 561947        | 21-Aug-02 | 34.17          |
| 561949        | 21-Aug-02 | 34.89          |
| 561950        | 21-Aug-02 | 32.18          |
| 561982        | 21-Aug-02 | 33.00          |
| 562015        | 21-Aug-02 | 34.23          |
| 562043        | 21-Aug-02 | 29.82          |
| 562053        | 21-Aug-02 | 34.37          |
| 562062        | 21-Aug-02 | 33.67          |
| 562078        | 21-Aug-02 | 34.75          |
| 562079        | 21-Aug-02 | 33.96          |
| 562131        | 21-Aug-02 | 31.74          |
| 562168        | 21-Aug-02 | 30.56          |
| 562184        | 21-Aug-02 | 33.54          |
| 562193        | 21-Aug-02 | 33.18          |
| 562196        | 21-Aug-02 | 32.46          |
| 562212        | 21-Aug-02 | 34.15          |
| 562217        | 21-Aug-02 | 34.17          |
| 562286        | 22-Aug-02 | 33.50          |
| 562299        | 22-Aug-02 | 34.45          |
| 562308        | 22-Aug-02 | 33.93          |
| 562323        | 22-Aug-02 | 36.17          |
| 562330        | 22-Aug-02 | 33.22          |
| 562356        | 22-Aug-02 | 34.76          |
| 562388        | 22-Aug-02 | 33.10          |
| 562402        | 22-Aug-02 | 32.93          |
| 562438        | 22-Aug-02 | 33.27          |
| 562465        | 22-Aug-02 | 32.26          |
| 562477        | 22-Aug-02 | 34.30          |
| 562489        | 22-Aug-02 | 34.91          |
| 562494        | 22-Aug-02 | 30.82          |
| 562543        | 22-Aug-02 | 32.52          |
| 563609        | 28-Aug-02 | 36.79          |
| 564038        | 28-Aug-02 | 34.22          |
| 564040        | 28-Aug-02 | 32.24          |
| 564050        | 28-Aug-02 | 30.40          |
| 564053        | 28-Aug-02 | 34.83          |
| 564083        | 28-Aug-02 | 35.34          |
| 564124        | 28-Aug-02 | 33.45          |
| 564134        | 28-Aug-02 | 31.77          |
| 564154        | 28-Aug-02 | 33.08          |
| 564155        | 28-Aug-02 | 35.32          |
| 564193        | 28-Aug-02 | 34.88          |
| 564229        | 28-Aug-02 | 33.39          |
| 564235        | 28-Aug-02 | 32.47          |
| 564257        | 28-Aug-02 | 35.43          |
| 564278        | 28-Aug-02 | 34.69          |

**Table D-1 - Load Summary**  
**Terminal 1 South Removal Action**  
**Portland, Oregon**

| Ticket Number | Date      | Weight in tons  |
|---------------|-----------|-----------------|
| 564322        | 29-Aug-02 | 33.06           |
| 564328        | 29-Aug-02 | 32.36           |
| 564344        | 29-Aug-02 | 35.40           |
| 564347        | 29-Aug-02 | 33.91           |
| 564348        | 29-Aug-02 | 35.25           |
| 564425        | 29-Aug-02 | 33.55           |
| 564430        | 29-Aug-02 | 32.23           |
| 564462        | 29-Aug-02 | 35.64           |
| 564470        | 29-Aug-02 | 32.60           |
| 564471        | 29-Aug-02 | 35.14           |
| 564539        | 29-Aug-02 | 33.34           |
| 564546        | 29-Aug-02 | 31.97           |
| 564580        | 29-Aug-02 | 35.27           |
| 564583        | 29-Aug-02 | 34.91           |
| 564638        | 30-Aug-02 | 34.67           |
| 564642        | 30-Aug-02 | 35.26           |
| 564748        | 30-Aug-02 | 32.00           |
| 564759        | 30-Aug-02 | 34.74           |
| 570607        | 20-Sep-02 | 34.07           |
| 570619        | 20-Sep-02 | 24.83           |
| 570609        | 20-Sep-02 | 33.08           |
| 570618        | 20-Sep-02 | 23.97           |
| 570750        | 20-Sep-02 | 27.68           |
| 570755        | 20-Sep-02 | 34.50           |
| 570758        | 20-Sep-02 | 29.21           |
| 570786        | 20-Sep-02 | 27.60           |
| 570842        | 21-Sep-02 | 36.18           |
| 570845        | 21-Sep-02 | 31.13           |
| 570856        | 21-Sep-02 | 27.01           |
| 570857        | 21-Sep-02 | 30.34           |
| 570858        | 21-Sep-02 | 31.64           |
| 570870        | 21-Sep-02 | 30.66           |
| 570857        | 21-Sep-02 | 32.77           |
| 570958        | 21-Sep-02 | 31.04           |
| 570977        | 21-Sep-02 | 30.10           |
| 571034        | 21-Sep-02 | 29.04           |
| 571035        | 21-Sep-02 | 29.21           |
| 571037        | 21-Sep-02 | 29.35           |
| 571061        | 21-Sep-02 | 30.31           |
| 571391        | 23-Sep-02 | 25.69           |
| 571391        | 23-Sep-02 | 29.59           |
| 571515        | 23-Sep-02 | 26.02           |
| 561723        | 23-Sep-02 | 26.14           |
| 571857        | 24-Sep-02 | 25.21           |
| 571671        | 25-Sep-02 | 26.53           |
| 571690        | 25-Sep-02 | 26.53           |
| 571691        | 25-Sep-02 | 29.47           |
| 571695        | 25-Sep-02 | 33.14           |
| 571740        | 25-Sep-02 | 14.94           |
| 571820        | 25-Sep-02 | 28.42           |
| 571826        | 25-Sep-02 | 24.12           |
| 571868        | 25-Sep-02 | 32.92           |
| 571872        | 25-Sep-02 | 31.24           |
| <b>Total:</b> |           | <b>6,399.06</b> |

F:\Data\InfoPort of Portland\15220-01 Term 1 Support\Port 20 Construction Report\Tables (Table D-1 Track Loads)

Oct 09 02 02:28p

EUDALY BROS

288 7469

p.2

Aug 07 02 04:47p

Valley Landfill

1 541 745 3826

p.1

Aug AUG. 7. 2002 3:04PM

RIVER CITY DISPOSAL

5032561841 NO.487

P.1 P.2

Aug 01 02 10:52a

Valley Landfill

1 541 745 3826

P.2



Page 1 of 2

## GENERATOR WASTE PROFILE SHEET

Requested Disposal Facility:

COFFIN BUTTE LANDFILL  
an Allied Waste Company

Waste Profile #

632 y2 6666

Rep # 111

## I. Generator Information

Date: 8/1/02

|   |                   |                          |            |
|---|-------------------|--------------------------|------------|
| Generator Name: Port of Portland          |                   |                          |            |
| Generator Site Address: P.O. Box 3529     |                   |                          |            |
| City: Portland                            | County: Multnomah | State: Oregon            | Zip: 97209 |
| Generator State ID Number:                |                   | SIC Code Number:         |            |
| Generator Mailing Address (if different): |                   |                          |            |
| City:                                     | County:           | State:                   | Zip:       |
| Generator Contact Name: Joe Mellusky      |                   |                          |            |
| Phone Number: 503-944-7523                |                   | Fax Number: 503-944-7466 |            |

## II. Transporter Information

|   |         |             |      |
|---|---------|-------------|------|
| Transporter Name: Not available Earthmoving Contractor → Eudaly Bros. |         |             |      |
| Transporter Address:  |         |             |      |
| City:   | County: | State:      | Zip: |
| Transporter Contact Name:   |         |             |      |
| Phone Number:   |         | Fax Number: |      |
| State Transportation Number:  |         |             |      |

## III. Waste Stream Information

|   |  |  |                                 |
|---|--|--|---------------------------------|
| Name of Waste: Petroleum hydrocarbon - contaminated soil                  |  |  |                                 |
| Process Generating Waste: Accidental release from UST's or surface spills |  |  |                                 |
| Type of Waste:  | <input type="checkbox"/> INDUSTRIAL PROCESS WASTE or <input checked="" type="checkbox"/> POLLUTION CONTROL WASTE |  |                                 |
| Physical State:   | <input checked="" type="checkbox"/> SOLID  | <input type="checkbox"/> SEMI-SOLID            | <input type="checkbox"/> POWDER |
| Method of Shipment:   | <input checked="" type="checkbox"/> BULK   | <input type="checkbox"/> DRUM                  | <input type="checkbox"/> BAGGED |
| Estimated Annual Volume:  | <input type="checkbox"/> CUBIC YARDS:  | <input checked="" type="checkbox"/> TONS: 4700 | <input type="checkbox"/> OTHER: |
| Frequency:  | <input type="checkbox"/> ONE TIME  | <input checked="" type="checkbox"/> DAILY      | <input type="checkbox"/> WEEKLY |
|   |  | <input type="checkbox"/> MONTHLY               | <input type="checkbox"/> OTHER: |
| Special Handling Instructions:  |  |  |                                 |

## IV. Representative Sample Certification

NO SAMPLE TAKEN

|  |                 |   |
|--|-----------------|---|
| Is the representative sample collected to prepare this profile and laboratory analysis, collected in accordance with U.S. EPA 40 CFR 261.10(c) guidelines or equivalent rules? |                 | <input checked="" type="checkbox"/> YES or <input type="checkbox"/> NO                    |
| Sample Date:   | Type of Sample: | <input type="checkbox"/> COMPOSITE SAMPLE <input checked="" type="checkbox"/> GRAB SAMPLE |
| Sampler's Employer: Huber and Associates and Hart Crouse   |                 |   |
| Sampler's Name (printed): Lexi Fernandez   |                 | Signature: [Signature]  |

- 1) Please see attached data. Highlighted sections of data indicate samples collected from soil to be excavated. Laboratory data provided by Huber and Associates
- 2) Hart Crouse has collected a representative sample from sampling location B-52 (lead concentration of 121 mg/kg). Sample is currently being analyzed for TCLP metals & metals. Sample results will be available roughly noon of 8/5/02.

© Allied Waste Industries, August 2000

|                   |              |              |               |
|-------------------|--------------|--------------|---------------|
| Post-it® Fax Note | 7671         | Date: 8-7-02 | # of pages: 3 |
| To:               | Judy         | From:        | Beaneita      |
| Co./Dept:         | Eudaly Bros. | Co.:         | ULI/AWI       |
| Phone #           |              | Phone #      | 541-745-2018  |
| Fax #             | 503-288-7460 | Fax #        | 541-745-3826  |

POPT1S602797

Oct 09 02 02:28p

EUDALY BROS

288 7469

P.3

Aug 07 02 04:47p  
AUG 7 2002 3:54PM  
RUE 07 11 02:07PValley Landfill  
RIVER CITY DISPOSAL1 541 745 3826  
5032561841 NO.487

P.2 P.3

Aug 01 02 10:52a

Valley Landfill

1 541 745 3826

P.3



Page 2 of 2

## GENERATOR WASTE PROFILE SHEET (continued)

|                 |
|-----------------|
| Waste Profile # |
| 1-3242 0606     |

## V. Physical Characteristics of Waste

Characteristic Components

% by Weight (range)

|   |     |
|---|-----|
| 1. Petroleum Hydrocarbon  |     |
| 2. Polymers (predominantly lead)  |     |
| 3. Metals (predominantly lead)  |     |
| Color:  |     |
| Odor (describe):  |     |
| Free Liquids:<br><input type="checkbox"/> YES or <input checked="" type="checkbox"/> NO |     |
| Content %   |     |
| % Solids:   | 100 |
| pH:   |     |
| Flash Point:  |     |
| Pyroly:   |     |

## Attach Laboratory Analytical Report (and/or Material Safety Data Sheet)

## Including Required Parameters Provided for this Profile

|  |  |
|--|--|
| Does this waste or generating process contain regulated concentrations of the following Pesticides and/or Herbicides: Chlorpyrifos, Endosulfan, Imidacloprid (and its isomers), Lindane, Methoxychlor, Toxaphene, 2,4-D, or 2,4,5-TP Silver as defined in 40 CFR 261.33? | <input type="checkbox"/> YES or <input checked="" type="checkbox"/> NO |
| Does this waste or generating process cause or result in excess OSHA exposure limits from high levels of Hydrogen Sulfide or Hydrogen Cyanide as defined in 40 CFR 261.33?   | <input type="checkbox"/> YES or <input checked="" type="checkbox"/> NO |
| Does this waste contain regulated concentrations of Polychlorinated Biphenyls (PCBs) as defined in 40 CFR Part 261?  | <input type="checkbox"/> YES or <input checked="" type="checkbox"/> NO |
| Does this waste contain regulated concentrations of listed hazardous wastes defined in 40 CFR 261.31, 261.32, 261.33, including RCRA F-Listed Solvents?  | <input type="checkbox"/> YES or <input checked="" type="checkbox"/> NO |
| Does this waste contain regulated concentrations of 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD), or any other dioxin as defined in 40 CFR 261.31?   | <input type="checkbox"/> YES or <input checked="" type="checkbox"/> NO |
| Is this a regulated Toxic Material as defined by Federal and/or State regulations?   | <input type="checkbox"/> YES or <input checked="" type="checkbox"/> NO |
| Is this a regulated Radioactive Waste as defined by Federal and/or State regulations?  | <input type="checkbox"/> YES or <input checked="" type="checkbox"/> NO |
| Is this a regulated Medical or Infectious Waste as defined by Federal and/or State regulations?  | <input type="checkbox"/> YES or <input checked="" type="checkbox"/> NO |
| Is this waste generated in a Federal Superfund Clean Up Site?  | <input type="checkbox"/> YES or <input checked="" type="checkbox"/> NO |

## VI. Generator Certification

I hereby certify that to the best of my knowledge and belief, the information contained herein is a true and accurate description of the waste material being offered for disposal. I further certify that by utilizing this profile, neither myself nor any other employee of the company will deliver for disposal or attempt to deliver for disposal any waste which is classified as toxic waste, hazardous waste or infectious waste, or any other waste material this facility is prohibited from accepting by law. Our company hereby agrees to fully indemnify this disposal facility against any damages resulting from this certification being inaccurate or untrue. I further certify that the company has not shared the form or content of this profile sheet as provided by Allied Waste Industries, Inc.

AUTHORIZED REPRESENTATIVE NAME AND TITLE (Printed)

COMPANY NAME

AUTHORIZED REPRESENTATIVE SIGNATURE

DATE

## VII. Allied Waste Decision

☒ Approved ☐ Rejected

Expiration:

Conditions:

Tony Walker, Special Waste Analyst

Name, Title

Signature

Date

© Allied Waste Industries, August 2000

POPT1S602798

SUMMARY TOTALS BY COMMODITY  
FOR CUSTOMER EUDLAY, COMMODITY 150, TRANSACTION DATE FIRST TO LAST

| COMMODITY           | UNITS    | TONS |
|---------------------|----------|------|
| 150 Quote Port Port | 6,309.17 | 192  |
| ** TOTALS **        | 6,309.17 | 192  |

LEVI 503-620-6918

This shows total tons (units) and loads  
Please call if you have any questions  
541-745-2018

**EUDALY BRUS.**

GENERAL EXCAVATING

6920 N.E. 42nd AVENUE • PORTLAND, OREGON 97218

TELEPHONE (503) 288-7469

Port Of Portland      Date      8/9/02  
Terminal 1 South Parcel 2  
(area B) Remedial Action  
Project # 24232

\*      **Item 3 Environmental Excavation Haul**

| Load | Ticket # | Tons        |
|------|----------|-------------|
| 1    | 558468   | 32.45       |
| 2    | 558473   | 33.25       |
| 3    | 558506   | 33.13       |
| 4    | 558507   | 32.27       |
| 5    | 558510   | 31.61       |
| 6    | 558527   | 34.35       |
| 7    | 558528   | 34.77       |
| 8    | 558586   | 33.36       |
| 9    | 558594   | 33.16       |
| 10   | 558645   | 32.17       |
| 11   | 558647   | 34.7        |
| 12   | 558658   | 34.6        |
| 13   | 558659   | 34.37       |
| 14   | 558665   | 35.77       |
|      |          | 469.96 Tons |

POPT1S602800



VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 9, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 9:09  
Time out : 9:27  
Ticket No.: 558468  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 9  
Card ID : EUDLAY9  
Origin : 16  
Manifest # : ~~98 NUMBER~~ F32426604

| Commodity           | Units        | Rate  | Waste         | Tax | Amount |
|---------------------|--------------|-------|---------------|-----|--------|
| 150 Quota Port Port | 32.45        | .0000 |               |     |        |
| [Gross: 103,840     | Tare: 38,940 |       | per TON       |     |        |
|                     |              |       | Net: 64,900 ] |     |        |



Customer signature

Generator

COMMENT: CELORIE BROS.#19

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 9, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 9:24  
Time out : 9:35  
Ticket No.: 558473  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 8  
Card ID EUDLAY8  
Origin 16  
Manifest # ~~NO NUMBER~~ F32426604

| Commodity           | Units        | Rate  |         | \$ Waste    | \$ Tax | \$ Amount |
|---------------------|--------------|-------|---------|-------------|--------|-----------|
| 150 Brite Port Port | 33.25        | .0000 | per TON |             |        |           |
| Gross: 104,000      | Tare: 37,500 |       |         | Net: 66,500 |        |           |

Customer signature

Generator

COMMENT: CELORIE#18

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 9, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 10:16  
Time out : 10:29  
Ticket No.: 558506  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 5  
Card ID : EUDLAY5  
Origin : 16  
Manifest # : NO-NUMBER F32426606

| Commodity           | Units        | Rate    | Waste         | Tax | Amount |
|---------------------|--------------|---------|---------------|-----|--------|
| 150 Quate Port Port | 33.13        | 0200    |               |     |        |
| [Gross: 101,950     | Tare: 35,700 |         |               |     |        |
|                     |              | per TON |               |     |        |
|                     |              |         | Net: 66,250 ] |     |        |

Customer signature

Generator

COMMENT: CELORIE#16

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 9, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 10:11  
Time out : 10:35  
Ticket No.: 558510  
Site 1 COFFIN BUTTE LANDF  
Truck No.: 7  
Card ID EUDLAY7  
Origin 16  
Manifest # NO NUMBER

| Commodity           | Units        | Rate  |         | \$ Waste    | \$ Tax | \$ Amount |
|---------------------|--------------|-------|---------|-------------|--------|-----------|
| 150 Quote Port Port | 31.61        | .0000 | per TON |             |        |           |
| [Gross: 100,880     | Tare: 37,660 |       |         | Net: 63,220 | 1      |           |

Customer Signature 

Generator

COMMENT: DICKMOLL1

POPT1S602804

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 9, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 10:15  
Time out : 10:31  
Ticket No.: 558507  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 6  
Card ID : EUDLAY6  
Origin : 16  
Manifest # : ~~NO NUMBER~~ F32426604

| Commodity           | Units        | Rate  |         | \$ Waste      | \$ Tax | \$ Amount |
|---------------------|--------------|-------|---------|---------------|--------|-----------|
| 150 Waste Port Port | 32.27        | .0000 | per TON |               |        |           |
| [Gross: 102,040]    | Tare: 37,500 |       |         | Net: 64,540 ] |        |           |

Customer signature

Generator

COMMENT: CELORIE#10

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330


Telephone : 541-745-2018

August 9, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 10:47  
Time out : 11:02  
Ticket No.: 558527  
Site 1 COFFIN BUTTE LANDF  
Truck No.: 9  
Card ID EUDLAY9  
Origin 16  
Manifest # ~~NO NUMBER~~ F32426604

| Commodity           | Units        | Rate  |         | \$ Waste      | \$ Tax | \$ Amount |
|---------------------|--------------|-------|---------|---------------|--------|-----------|
| 150 Quote Port Port | 34.35        | .0000 | per TON |               |        |           |
| [Gross: 103,380     | Tare: 34,680 |       |         | Net: 68,700 ] |        |           |

  
Customer signature

Generator

COMMENT: PACICIC#5

POPT1S602806

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 9, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 10:52  
Time out : 11:04  
Ticket No.: 558528  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 8  
Card ID : EUDLAY8  
Origin : 16  
Manifest # : ~~NO NUMBER~~ F32426606

| Commodity           | Units        | Rate  | Waste       | Tax | Amount |
|---------------------|--------------|-------|-------------|-----|--------|
| 150 Quote Port Port | 34.77        | .0000 | per TON     |     |        |
| Gross: 104,860      | Tare: 35,320 |       | Net: 69,540 |     |        |

  
Customer signature

Generator

COMMENT: PACIFIC#6

POPT1S602807

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 9, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 12:51  
Time out : 13:04  
Ticket No.: 558586  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 9  
Card ID : EUDLAY9  
Origin : 16  
Manifest # : ~~NO NUMBER~~ F3242604

| Commodity           | Units        | Rate  |         | \$ Waste      | \$ Tax | \$ Amount |
|---------------------|--------------|-------|---------|---------------|--------|-----------|
| 150 Quote Port Port | 33.36        | .0000 | per TDN |               |        |           |
| IGross: 105,260     | Tare: 38,540 |       |         | Net: 66,720 1 |        |           |

*Paul Hendla*  
Customer signature

Generator

COMMENT: CELORIE#19

POPT1S602808



VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 9, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 13:01  
Time out : 13:12  
Ticket No.: 558594  
Site 1 COFFIN BUTTE LANDF  
Truck No.: 8  
Card ID EUDLAY8  
Origin 16  
Manifest # ~~NO NUMBER~~ F32426604

| Commodity            | Units        | Rate    | Waste         | Tax | Amount |
|----------------------|--------------|---------|---------------|-----|--------|
| 150 Dugite Port Port | 33.16        | .0000   |               |     |        |
| [Gross: 103,600      | Tare: 37,280 |         |               |     |        |
|                      |              | per TON | Net: 66,320 ] |     |        |

Customer signature

Generator

COMMENT: CELORIE#18

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

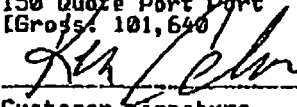
Telephone : 541-745-2018

August 9, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 14:32  
Time out : 14:47  
Ticket No.: 558645  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 10  
Card ID : EUDLAY10  
Origin : 16  
Manifest # : ~~NO NUMBER~~ F32726606

| Commodity          | Units        | Rate    | Waste         | Tax | Amount |
|--------------------|--------------|---------|---------------|-----|--------|
| 150 Quoz Port Port | 32.17        | .0000   |               |     |        |
| [Gross: 101,640]   | Tare: 37,300 |         |               |     |        |
|                    |              | per TON | Net: 64,340 ] |     |        |

  
Customer signature

Generator

COMMENT: CELORIE#10

POPT1S602810

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 9, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 14:33  
Time out : 14:52  
Ticket No.: 558647  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 9  
Card ID : EUDLAY9  
Origin : 16  
Manifest # : ~~NO NUMBER~~ F32726604

| Commodity           | Units        | Rate    | Waste       | Tax | Amount |
|---------------------|--------------|---------|-------------|-----|--------|
| 150 Quote Port Port | 34.70        | .0000   |             |     |        |
| (Gross: 104,800     | Tare: 35,480 |         |             |     |        |
|                     |              | per TON | Net: 69,400 |     |        |

Customer signature

Generator

COMMENT: CELORIE#16

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 9, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 14:52  
Time out : 15:07  
Ticket No.: 558658  
Site 1 COFFIN BUTTE LANDF  
Truck No.: 8  
Card ID EUDLAY8  
Origin 16  
Manifest # NO-NUMBER F32426604

| Commodity           | Units        | Rate    | Waste       | Tax | Amount |
|---------------------|--------------|---------|-------------|-----|--------|
| 150 Quate Port Port | 34.60        | 0000    |             |     |        |
| Gross: 104,300      | Tare: 35,100 | per TON |             |     |        |
|                     |              |         | Net: 69,200 |     |        |

  
Customer signature

Generator

COMMENT: PACIFIC#6

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 9, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 14:53  
Time out : 15:09  
Ticket No.: 558659  
Site 1 COFFIN BUTTE LANDF  
Truck No.: 7  
Card ID EUDLAY7  
Origin 16  
Manifest # NO NUMBER F32Y26406

| Commodity           | Units        | Rate  | Waste       | Tax | Amount |
|---------------------|--------------|-------|-------------|-----|--------|
| 150 Quote Port Port | 34.37        | .0000 | per TON     |     |        |
| Gross: 103,220      | Tare: 34,480 |       | Net: 68,740 |     |        |

Customer signature

Generator

COMMENT: PACIFIC#5

POPT1S602813

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 9, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 15:15  
Time out : 15:32  
Ticket No.: 558665  
Site No.: 1 COFFIN BUTTE LANDF  
Truck No.: 9  
Card ID EUDLAY9  
Origin 16  
Manifest # ~~NO NUMBER~~ F32426608

| Commodity           | Units        | Rate    | Waste         | Tax | Amount |
|---------------------|--------------|---------|---------------|-----|--------|
| 150 Quote Port Port | 35.77        | .0000   |               |     |        |
| [Gross: 109.160     | Tare: 37,620 |         |               |     |        |
|                     |              | per TON |               |     |        |
|                     |              |         | Net: 71,540 ] |     |        |

Customer signature

Generator

COMMENT: BLACK MOLL



Port Of Portland      Date      8/10/02  
Terminal 1 South Parcel 2  
(area B) Remedial Action  
Project # 24232

Item 3 Environmental Excavation Haul

| Load | Ticket # | Tons        |
|------|----------|-------------|
| 1    | 558711   | 32.89       |
| 2    | 558712   | 34.03       |
| 3    | 558714   | 32.2        |
| 4    | 558717   | 33.94       |
| 5    | 558726   | 30.03       |
| 6    | 558727   | 32.05       |
| 7    | 558730   | 36.59       |
| 8    | 558731   | 35          |
| 9    | 558732   | 34.81       |
| 10   | 558785   | 32.33       |
| 11   | 558799   | 32.29       |
| 12   | 558801   | 34.09       |
| 13   | 558827   | 34.49       |
| 14   | 558829   | 31.08       |
| 15   | 558855   | 35.21       |
| 16   | 558857   | 35.79       |
| 17   | 558872   | 29.12       |
| 18   | 558914   | 33.63       |
| 19   | 558930   | 36.57       |
|      |          | 636.14 Tons |
|      |          |             |
|      |          |             |
|      |          |             |

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

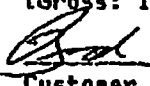
Telephone : 541-745-2018

August 10, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 7:40  
Time out : 7:57  
Ticket No.: 558711  
Site 1 COFFIN BUTTE LANDF  
Truck No.: 9  
Card ID EUDLAY9  
Origin 16  
Manifest # ~~NO NUMBER~~ F32424606

| Commodity           | Units        | Rate  | Waste         | Tax | Amount |
|---------------------|--------------|-------|---------------|-----|--------|
| 150 Quate Port Port | 32.89        | .0000 | per TON       |     |        |
| [Gross: 104,740     | Tare: 38,960 |       | Net: 65,780 ] |     |        |

  
Customer signature

Generator

COMMENT: CELORIE#19



VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 10, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 7:43  
Time out : 7:59  
Ticket No.: 558712  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 8  
Card ID : EUDLAY8  
Origin : 16  
Manifest # : NO NUMBER F32426606

| Commodity           | Units        | Rate    | Waste       | Tax | Amount |
|---------------------|--------------|---------|-------------|-----|--------|
| 150 Quate Port Port | 34.03        | .0000   |             |     |        |
| Gross: 105,580      | Tare: 37,520 |         |             |     |        |
|                     |              | per TON | Net: 68,060 |     |        |

Customer signature

Generator

COMMENT: CELORIE #18

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

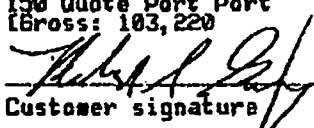
Telephone : 541-745-2018

August 10, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 8:01  
Time out : 8:11  
Ticket No.: SS8714  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 9  
Card ID EUDLAY9  
Origin 16  
Manifest # NO-NUMBER F32424604

| Commodity           | Units        | Rate  | Waste         | Tax | Amount |
|---------------------|--------------|-------|---------------|-----|--------|
| 150 Quote Port Port | 32.20        | .0000 |               |     |        |
| Gross: 103,220      | Tare: 38,820 |       | per TON       |     |        |
|                     |              |       | Net: 64,400 ] |     |        |

  
Customer signature

Generator

COMMENT: CELORIE#B

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

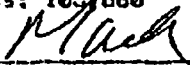
Telephone : 541-745-2018

August 10, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 8:05  
Time out : 8:15  
Ticket No.: 558717  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 8  
Card ID : EUDLAY8  
Origin : 16  
Manifest # : ~~NO NUMBER~~ F32426606

| Commodity           | Units        | Rate  | Waste         | Tax | Amount |
|---------------------|--------------|-------|---------------|-----|--------|
| 150 Quote Port Port | 33.94        | .0000 |               |     |        |
| [Gross: 103,860     | Tare: 35,980 |       | per TON       |     |        |
|                     |              |       | Net: 67,880 ] |     |        |

  
Customer signature

Generator

COMMENT: CELORIE 16

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 10, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 8:34  
Time out : 8:46  
Ticket No.: 558726  
Site 1 COFFIN BUTTE LANDF  
Truck No.: 9  
Card ID EUDLAY9  
Origin 16  
Manifest # NO-NUMBER

F32726604

| Commodity           | Units        | Rate  | Waste         | Tax | Amount |
|---------------------|--------------|-------|---------------|-----|--------|
| 150 Quote Port Part | 30.03        | .0000 | per TON       |     |        |
| [Gross 98,080       | Tare: 38,020 |       | Net: 60,060 ] |     |        |

Donni S. G. G.  
Customer signature

Generator

COMMENT: CELORIE #2

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 10, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 8:35  
Time out : 8:49  
Ticket No.: 558727  
Site 1 COFFIN BUTTE LANDF  
Truck No.: 8  
Card ID EUDLAY8  
Origin 16  
Manifest # ~~NO NUMBER~~ F32426604

| Commodity           | Units        | Rate          | Waste         | Tax | Amount |
|---------------------|--------------|---------------|---------------|-----|--------|
| 150 Quote Port Port | 32.05        | .0000 per TON |               |     |        |
| (Gross: 100,860)    | Tare: 36,760 |               |               |     |        |
|                     |              |               | Net: 64,100 ] |     |        |

Customer signature

Generator

COMMENT: CELORIE #5

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 10, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 8:52  
Time out : 9:11  
Ticket No.: 558730  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 9  
Card ID : EUDLAY9  
Origin : 16  
Manifest # : ~~NO NUMBER~~ F32426604

| Commodity           | Units        | Rate         | Waste         | Tax | Amount |
|---------------------|--------------|--------------|---------------|-----|--------|
| 150 Quake Port Port | 36.59        | 0000 per TON |               |     |        |
| [Gross: 111,040     | Tare: 37,860 |              | Net: 73,180 ] |     |        |

Customer signature

Generator

COMMENT: DICK MOLL BLACK

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 10, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 8:53  
Time out : 9:13  
Ticket No.: 558731  
Site 1 COFFIN BUTTE LANDF  
Truck No.: 8  
Card ID EUDLAY8  
Origin 16  
Manifest # NO NUMBER F32426604

| Commodity           | Units        | Rate         | Waste       | Tax | Amount |
|---------------------|--------------|--------------|-------------|-----|--------|
| 150 Quate Port Port | 35.00        | 0000 per TON |             |     |        |
| Gross: 105,120      | Tare: 35,120 |              | Net: 70,000 |     |        |

Customer signature

Generator

COMMENT: PACIFIC TRANSPORT 6

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

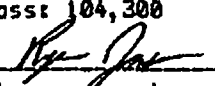
Telephone : 541-745-2018

August 10, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 8:55  
Time out : 9:15  
Ticket No.: 558732  
Site 1 COFFIN BUTTE LANDF  
Truck No.: 7  
Card ID EUDLAY7  
Origin 16  
Manifest # ~~NO NUMBER~~ F32424406

| Commodity           | Units        | Rate  | Waste         | Tax | Amount |
|---------------------|--------------|-------|---------------|-----|--------|
| 150 Quote Port Port | 34.81        | .0000 |               |     |        |
| (Gross: 104,300     | Tare: 34,680 |       | per TON       |     |        |
|                     |              |       | Net: 69,620 ] |     |        |

  
Customer signature

Generator

COMMENT: PACIFIC TRANSPORT 5

POPT1S602824



VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 10, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 11:07  
Time out : 11:19  
Ticket No.: 558785  
Site 1 COFFIN BUTTE LANDF  
Truck No.: 9  
Card ID EUDLAY9  
Origin 16  
Manifest # NO NUMBER

| Commodity           | Units        | Rate  |         | \$ Waste      | \$ Tax | \$ Amount |
|---------------------|--------------|-------|---------|---------------|--------|-----------|
| 150 Quota Port Port | 32.33        | .0000 | per TON |               |        |           |
| [Gross: 101,920     | Tare: 37,260 |       |         | Net: 64,660 ] |        |           |

Customer signature

Generator

COMMENT: CELORIE 18

POPT1S602825

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

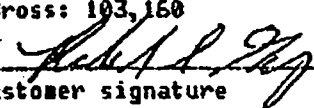
Telephone : 541-745-2018

August 10, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 11:29  
Time out : 11:41  
Ticket No.: 558799  
Site 1 COFFIN BUTTE LANDF  
Truck No.: 8  
Card ID EUDLAY8  
Origin 16  
Manifest # ~~410 NUMBER~~ F32424406

| Commodity           | Units        | Rate  | Waste         | Tax | Amount |
|---------------------|--------------|-------|---------------|-----|--------|
| 150 Quote Port Port | 32.29        | .0000 |               |     |        |
| (Gross: 103,150     | Tare: 38,580 |       | per TON       |     |        |
|                     |              |       | Net: 64,580 ] |     |        |

  
Customer signature

Generator

COMMENT: CELORIE#8

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

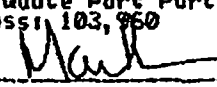
Telephone : 541-745-2018

August 10, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 11:33  
Time out : 11:43  
Ticket No.: 558801  
Site 1 COFFIN BUTTE LANDF  
Truck No.: 7  
Card ID EUDLAY7  
Origin 16  
Manifest # ~~NO NUMBER~~ F32726604

| Commodity           | Units        | Rate          | \$ Waste      | \$ Tax | \$ Amount |
|---------------------|--------------|---------------|---------------|--------|-----------|
| 150 Quote Port Port | 34.89        | .0000 per TON |               |        |           |
| (Gross: 103,950)    | Tare: 35,780 |               |               |        |           |
|                     |              |               | Net: 68,180 ] |        |           |

  
Customer signature

Generator

COMMENT: CELORIE#16

POPT1S602827

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97338

Telephone : 541-745-2018

August 10, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 12:18  
Time out : 12:31  
Ticket No.: 558027  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 9  
Card ID : EUDLAY9  
Origin : 16  
Manifest # : ~~NO NUMBER~~ F32426604

| Commodity           | Units        | Rate    | \$ Waste    | \$ Tax | \$ Amount |
|---------------------|--------------|---------|-------------|--------|-----------|
| 150 Quete Port Port | 34.49        | .0000   |             |        |           |
| Gross: 103,480      | Tare: 36,500 |         |             |        |           |
|                     |              | per TON |             |        |           |
|                     |              |         | Net: 68,980 |        |           |

Customer Signature

Generator

COMMENT: CELORIE#5

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 10, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 12:18  
Time out : 12:34  
Ticket No.: 558829  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 8  
Card ID : EUDLAY8  
Origin : 16  
Manifest # : ~~NO NUMBER~~ F3242604

| Commodity           | Units        | Rate    | Waste         | Tax | Amount |
|---------------------|--------------|---------|---------------|-----|--------|
| 150 Quote Port Port | 31.08        | .0000   |               |     |        |
| [Gross: 99,940      | Tare: 37,780 |         |               |     |        |
|                     |              | per TON | Net: 62,160 ] |     |        |

*Donni Nola*  
Customer signature

Generator

COMMENT: CELORIE#92-2

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 10, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 12:47  
Time out : 13:05  
Ticket No.: 558855  
Site No.: 1 COFFIN BUTTE LANDF  
Truck No.: 7  
Card ID EUDLAY7  
Origin 16  
Manifest # NO-NUMBER F32424604

| Commodity           | Units        | Rate  | Waste         | Tax | Amount |
|---------------------|--------------|-------|---------------|-----|--------|
| 150 Quota Port Port | 35.21        | .0000 |               |     |        |
| [Gross: 105,320     | Tare: 34,900 |       | per TDN       |     |        |
|                     |              |       | Net: 70,420 ] |     |        |

  
Customer signature

Generator

COMMENT: PAC6

POPT1S602830

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 10, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 12:55  
Time out : 13:11  
Ticket No.: 550857  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 6  
Card ID : EUDLAY6  
Origin : 16  
Manifest # : ~~NO NUMBER~~ F32426606

| Commodity           | Units        | Rate    | \$ Waste      | \$ Tax | \$ Amount |
|---------------------|--------------|---------|---------------|--------|-----------|
| 150 Quote Port Port | 35.79        | .0000   |               |        |           |
| [Gross: 106,040     | Tare: 34,460 |         |               |        |           |
|                     |              | per TDN |               |        |           |
|                     |              |         | Net: 71,580 ] |        |           |

  
Customer signature

Generator

COMMENT: PACIFICS

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

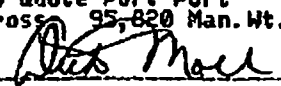
Telephone : 541-745-2018

August 10, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 13:30  
Time out : 13:37  
Ticket No.: 558872  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 9  
Card ID : EUDLAY9  
Origin : 16  
Manifest # : NO NUMBER

| Commodity             | Units        | Rate    | Waste       | Tax | Amount |
|-----------------------|--------------|---------|-------------|-----|--------|
| 150 Quote Port Port   | 29.12        | .0000   |             |     |        |
| [Bross 95,820 Man.Wt. | Tare: 37,580 |         |             |     |        |
|                       |              | per TON | Net: 58,240 |     |        |

  
Customer signature

Generator

COMMENT: DICK MALL BLACK

POPT1S602832



VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 10, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 14:39  
Time out : 14:51  
Ticket No.: 558914  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 9  
Card ID EUDLAY9  
Origin 16  
Manifest # NB-NUMBER F32426604

| Commodity           | Units        | Rate    | Waste         | Tax | Amount |
|---------------------|--------------|---------|---------------|-----|--------|
| 150 Quota Port Port | 33.63        | .0000   |               |     |        |
| [Gross: 104,420     | Tare: 37,160 |         |               |     |        |
|                     |              | per TON |               |     |        |
|                     |              |         | Net: 67,260 ] |     |        |

Customer signature

Generator

COMMENT: CELORIE#18

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 10, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 15:08  
Time out : 15:20  
Ticket No.: 558930  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 8  
Card ID : EUDLAY8  
Origin : 16  
Manifest # : ~~NO NUMBER~~ F32726404

| Commodity           | Units        | Rate  | Waste         | Tax | Amount |
|---------------------|--------------|-------|---------------|-----|--------|
| 150 Quate Port Port | 36.57        | .0000 |               |     |        |
| (Gross: 108,640     | Tare: 35,500 |       | per TON       |     |        |
|                     |              |       | Net: 73,140 ] |     |        |

Customer signature

Generator

COMMENT: CELORIE#16



TELEPHONE (503) 288-7469

Port Of Portland      Date      8/12/02  
Terminal 1 South Parcel 2  
(area B) Remedial Action  
Project # 24232

### Item 3 Environmental Excavation Haul

[illegible]

**Broke Down Delivered  
Next Day**

**477.31 Tons**

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 12, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 7:46  
Time out : 7:57  
Ticket No.: 559216  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 9  
Card ID : EUDLAY9  
Origin : 16  
Manifest # : NO #

F32426606

| Commodity           | Units        | Rate    | Waste       | Tax | Amount |
|---------------------|--------------|---------|-------------|-----|--------|
| 150 Quota Port Port | 33.28        | .0000   |             |     |        |
| Gross 103,740       | Tarp: 37,180 |         |             |     |        |
|                     |              | per TON | Net: 66,560 |     |        |

Customer signature

Generator

COMMENT: CELORIE 18

Aug 13 02 09:03a

Valley Landfills

1 541 745 3020

P.O.

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 12, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 8:13  
Time out : 8:24  
Ticket No.: 559229  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 3  
Card ID EUDLAY3  
Origin 16  
Manifest # NO #

E3242606

| Commodity           | Units        | Rate | Waste         | Tax | Amount |
|---------------------|--------------|------|---------------|-----|--------|
| 150 Quate Port Port | 33.92        | 0000 |               |     |        |
| [Gross: 103,600     | Tare: 35,760 |      | per TON       |     |        |
|                     |              |      | Net: 67,840 ] |     |        |

Customer signature

Generator

COMMENT: CELORIE 16

POPT1S602837

Aug 13 02 09:03a

Valley Landfills

1 371 745 3620

P..

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 12, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 7:59  
Time out : 8:28  
Ticket No.: 559234  
Site No.: 1 COFFIN BUTTE LANDF  
Truck No.: 1  
Card ID EUDLAY1  
Origin 16  
Manifest # NO #

F32426606

| Commodity           | Units        | Rate  | Waste       | Tax | Amount |
|---------------------|--------------|-------|-------------|-----|--------|
| 150 Quota Port Port | 33.69        | .0000 |             |     |        |
| (Gross: 105,040)    | Tare: 37,660 |       | per TON:    |     |        |
|                     |              |       | Net: 67,380 | 1   |        |

Customer signature

Generator

COMMENT: KEITH MOLL

POPT1S602838

Aug 13 02 09:03a

Valley Landfill

1 541 745 3826

P.5

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
26972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 12, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 8:02  
Time out : 8:31  
Ticket No.: SS9236  
Site 1 COFFIN BUTTE LANDF  
Truck No.: 2  
Card ID EUDLAY2  
Origin 16  
Manifest # NO #

F32426606

| Commodity           | Units        | Rate  | Waste   | Tax | Amount        |
|---------------------|--------------|-------|---------|-----|---------------|
| 150 Quate Port Port | 34.80        | .0000 | per TON |     |               |
| Gross: 104,050      | Tare: 34,450 |       |         |     | Net: 69,600 ] |

Customer signature

Generator

COMMENT: PACIFIC TRANSPORT 5

POPT1S602839

Aug 13 02 09:04a

Valley Landfills

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

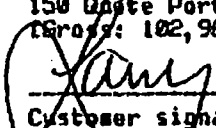
Telephone : 541-745-2018

August 12, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6320 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 8:23  
Time out : 8:36  
Ticket No.: 559240  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 5  
Card ID : EUDLAY5  
Origin : 16  
Manifest # : F32Y26606

| Commodity           | Units        | Rate          | Waste       | Tax | Amount |
|---------------------|--------------|---------------|-------------|-----|--------|
| 150 Waste Port Port | 33.93        | .0000 per TON |             |     |        |
| Gross: 102,960      | Tare: 35,100 |               | Net: 67,860 |     |        |

  
Customer signature

Generator

COMMENT: PACIFIC TRANSPORT 6

POPT1S602840



Aug 13 02 09:04a

Valley Landfills

1 541 745 3020

P..

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 12, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 11:02  
Time out : 11:14  
Ticket No.: 559306  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 1  
Card ID : EUDLAY1  
Origin : 16  
Manifest #: F32Y26606

| Commodity           | Units        | Rate    | Waste       | Tax | Amount |
|---------------------|--------------|---------|-------------|-----|--------|
| 150 Quote Port Port | 33.67        | .0000   |             |     |        |
| Gross: 104,280      | Tare: 36,940 | per TON | Net: 67,340 |     |        |

*ROGER THAYER*  
Customer signature

Generator

COMMENT: CELORIE18

POPT1S602841

Aug 13 02 09:04a

Valley Landfill

1 541 745 3826

P.O.

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 12, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 11:36  
Time out : 11:47  
Ticket No.: 559324  
Site 1 COFFIN BUTTE LANDF  
Truck No.: 2  
Card ID EUDLAY2  
Origin 16  
Manifest # F32Y26606

| Commodity           | Units        | Rate    | \$ Waste      | \$ Tax | \$ Amount |
|---------------------|--------------|---------|---------------|--------|-----------|
| 150 Quate Port Port | 33.90        | .0000   |               |        |           |
| (Gross: 103,540     | Tare: 35,740 |         |               |        |           |
|                     |              | per TON | Net: 67,800 ] |        |           |

*Mark*  
Customer signature

Generator

COMMENT: CELORIE16

POPT1S602842

Aug 13 02 09:04a

Valley Landfills

1 371 745 3826

P.3

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 12, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 11:53  
Time out : 12:10  
Ticket No.: 559337  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 3  
Card ID EUDLAY3  
Origin 16  
Manifest # F32Y26606

| Commodity           | Units        | Rate          | Waste         | Tax | Amount |
|---------------------|--------------|---------------|---------------|-----|--------|
| 150 Quote Port Port | 35.14        | .0000 per TON |               |     |        |
| [Gross: 104,520     | Tare: 34,240 |               | Net: 70,280 ] |     |        |

Customer signature

Generator

COMMENT: PACIFIC TRANSPORT 5

POPT1S602843

Aug 13 02 09:04a

Valley Landfill

1 541 745 3826

P.10

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 12, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 12:07  
Time out : 12:21  
Ticket No.: 559342  
Site 1 COFFIN BUTTE LANDF  
Truck No.: 1  
Card ID EUDLAY1  
Origin 16  
Manifest # F32Y26606

| Commodity           | Units        | Rate  | Waste       | Tax | Amount |
|---------------------|--------------|-------|-------------|-----|--------|
| 150 Quota Port Port | 34.54        | .0000 | per TON     |     |        |
| Gross: 103,980      | Tare: 34,900 |       | Net: 69,080 |     |        |

Customer signature

Generator

COMMENT: PACIFIC TRANSPORT 6

POPT1S602844

Aug 13 02 09:05a

Valley Landfill

1 541 745 3826

P.11

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330


Telephone : 541-745-2018

August 12, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 14:46  
Time out : 15:00  
Ticket No.: 559432  
Site 1 COFFIN BUTTE LANDF  
Truck No.: 1  
Card ID EUDLAY1  
Origin 16  
Manifest # F32Y26606

| Commodity           | Units        | Rate  | Waste         | Tax | Amount |
|---------------------|--------------|-------|---------------|-----|--------|
| 150 Quote Port Port | 34.53        | .0000 | per TON       |     |        |
| [Gross: 106,180     | Tare: 37,120 |       | Net: 69,060 ] |     |        |

  
Customer signature

Generator

COMMENT: CELORIE18

POPT1S602845

Aug 13 02 09:05a

Valley Landfills

1 541 745 3020

PAGE

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 12, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 15:12  
Time out : 15:22  
Ticket No.: 559440  
Site No.: 1 COFFIN BUTTE LANDF  
Truck No.: 1  
Card ID EUDLAY1  
Origin 16  
Manifest # F32Y26606

| Commodity           | Units        | Rate    | Waste       | Tax | Amount |
|---------------------|--------------|---------|-------------|-----|--------|
| 150 Quote Port Port | 34.22        | .0000   |             |     |        |
| Gross: 103,940      | Tare: 35,500 | per TON | Net: 68,440 |     |        |

Customer signature

Generator

COMMENT: CELDRIE16

POPT1S602846

Aug 13 02 09:05a

Valley Landfills

1 571 745 3020

PAGE

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 12, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 15:28  
Time out : 15:47  
Ticket No.: 559449  
Site 1 COFFIN BUTTE LANDF  
Truck No.: 1  
Card ID EUDLAY1  
Origin 16  
Manifest # F32Y26606

| Commodity           | Units        | Rate          | \$ Waste      | \$ Tax | \$ Amount |
|---------------------|--------------|---------------|---------------|--------|-----------|
| 150 Quote Port Port | 34.77        | .0000 per TON |               |        |           |
| [Gross: 103,820     | Tare: 34,280 |               |               |        |           |
|                     |              |               | Net: 69,540 ] |        |           |

  
Customer signature

Generator

COMMENT: PACIFIC TRANSPORT 5

POPT1S602847

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

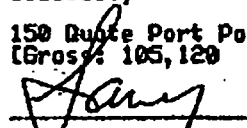
Telephone : 541-745-2018

August 12, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 15:38  
Time out : 15:52  
Ticket No.: 559453  
Site No.: 1 COFFIN BUTTE LANDF  
Truck No.: 2  
Card ID EUDLAY2  
Origin 16  
Manifest # F32Y26606

| Commodity           | Units        | Rate          | \$ Waste      | \$ Tax | \$ Amount |
|---------------------|--------------|---------------|---------------|--------|-----------|
| 150 Dulte Port Port | 35.30        | .0000 per TON |               |        |           |
| (Gross: 105,120)    | Tare: 34,520 |               | Net: 70,600 ] |        |           |

  
Customer signature

Generator

COMMENT: PACIFIC TRANSPORT 6



Aug 13 02 11:30a

Valley Landfills

541 745 3826

P.2

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 13, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 7:42  
Time out : 8:01  
Ticket No.: 559543  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 1  
Card ID EUDLAY1  
Origin 16  
Manifest # F32Y26606

| Commodity           | Units        | Rate    | Waste         | Tax | Amount |
|---------------------|--------------|---------|---------------|-----|--------|
| 150 Quote Port Port | 31.62        | .0000   |               |     |        |
| Gross: 100,900      | Tare: 37,660 | per TON |               |     |        |
|                     |              |         | Net: 63,240 ] |     |        |

Customer signature

Generator

COMMENT: KEITH MOLL

POPT1S602849

**Port Of Portland      Date      8/15/02**  
**Terminal 1 South Parcel 2**  
**(area B) Remedial Action**  
**Project # 24232**

### Item 3 Environmental Excavation Haul

[illegible]

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
26972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 15, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 12:13  
Time out : 12:42  
Ticket No.: 560275  
Site No.: 1 COFFIN BUTTE LANDF  
Truck No.: 1  
Card ID EUDLAY1  
Origin 16  
Manifest # F32Y26606

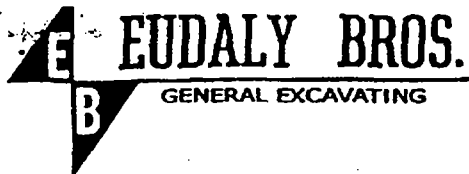
| Commodity           | Units        | Rate    | Waste         | Tax | Amount |
|---------------------|--------------|---------|---------------|-----|--------|
| 150 Quote Port Port | 29.85        | .0000   |               |     |        |
| [Gross: 97,360      | Tare: 37,660 | per TON |               |     |        |
|                     |              |         | Net: 59,700 ] |     |        |

*Dick Moll*  
Customer signature

Generator

COMMENT: DICK MOLL

POPT1S602851



6920 N.E. 42nd AVENUE • PORTLAND, OREGON 97218

TELEPHONE (503) 288-7469

Port Of Portland      Date      8/16/02  
Terminal 1 South Parcel 2  
(area B) Remedial Action  
Project # 24232

Item 3 Environmental Excavation Haul

| Load | Ticket # | Tons     |
|------|----------|----------|
| 1    | 560450   | 32.79    |
| 2    | 560456   | 31.90    |
| 3    | 560459   | 35.01    |
| 4    | 560470   | 34.70    |
| 5    | 560472   | 34.89    |
| 6    | 560564   | 34.23    |
| 7    | 560565   | 33.42    |
| 8    | 560577   | 32.93    |
| 9    | 560582   | 34.66    |
| 10   | 560609   | 34.63    |
| 11   | 560611   | 35.11    |
| 12   | 560681   | 39.33    |
| 13   | 560691   | 33.38    |
| 14   | 560699   | 32.48    |
| 15   | 560703   | 31.09    |
| 16   | 560704   | 34.01    |
| 17   | 560741   | 34.69    |
| 18   | 560742   | 34.75    |
|      |          |          |
|      |          | 614 Tons |
|      |          |          |
|      |          |          |
|      |          |          |

U  
VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 16, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 7:31  
Time out : 7:47  
Ticket No.: 560450  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 1  
Card ID : EUDLAY1  
Origin : 16  
Manifest # : F32Y26606

| Commodity           | Units | Rate         |         | Waste       | Tax | Amount |
|---------------------|-------|--------------|---------|-------------|-----|--------|
| 150 Quote Port Port | 32.79 | .0000        | per TON |             |     |        |
| Gross: 102,820      |       | Fare: 37,240 |         | Net: 65,580 |     |        |

*ROGER THRASHER*  
Customer signature

Generator

POPT1S602853

U  
VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

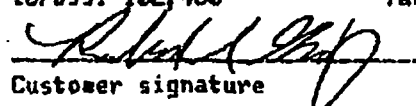
Telephone : 541-745-2018

August 16, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 7:40  
Time out : 7:59  
Ticket No.: 560456  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 1  
Card ID : EUDLAY1  
Origin : 16  
Manifest # : F32Y26506

| Commodity           | Units        | Rate  |         | \$ Waste    | \$ Tax | \$ Amount |
|---------------------|--------------|-------|---------|-------------|--------|-----------|
| 150 Quote Port Port | 31.90        | .0000 | per TON |             |        |           |
| Gross: 102,460      | Tare: 38,660 |       |         | Net: 63,800 |        |           |

  
Customer signature

Generator

COMMENT: CELORIE B

POPT1S602854

6  
VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 16, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 7:57  
Time out : 8:07  
Ticket No.: 560459  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 2  
Card ID : EUDLAY2  
Origin : 16  
Manifest # : F32Y26606

| Commodity           | Units        | Rate  |         | \$ Waste      | \$ Tax | \$ Amount |
|---------------------|--------------|-------|---------|---------------|--------|-----------|
| 150 Quote Port Port | 35.01        | .0000 | per TON |               |        |           |
| Gross: 105,740      | Tare: 35,720 |       |         | Net: 70,020 ] |        |           |

*[Signature]*  
Customer signature

Generator

COMMENT: CELORIE 16

POPT1S602855

U  
VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

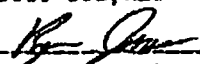
Telephone : 541-745-2018

August 16, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE.  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 8:15  
Time out : 8:34  
Ticket No.: 560470  
Site 1 COFFIN BUTTE LANDF  
Truck No.: 3  
Card ID EUDLAY3  
Origin 16  
Manifest # F32Y26606

| Commodity           | Units        | Rate  |         | \$ Waste      | \$ Tax | \$ Amount |
|---------------------|--------------|-------|---------|---------------|--------|-----------|
| 150 Quote Port Port | 34.70        | .0000 | per TON |               |        |           |
| [Gross: 103,820     | Tare: 34,420 |       |         | Net: 69,400 ] |        |           |

  
Customer signature

Generator

COMMENT: PACIFIC TRANSPORT 5

POPT1S602856



U  
VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

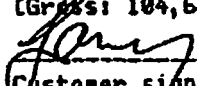
Telephone : 541-745-2018

August 16, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 8:27  
Time out : 8:41  
Ticket No.: 560472  
Site No.: 1 COFFIN BUTTE LANDF  
Truck No.: 4  
Card ID EUDLAY4  
Origin 16  
Manifest # F32Y25606

| Commodity           | Units        | Rate    | Waste         | Tax | Amount |
|---------------------|--------------|---------|---------------|-----|--------|
| 150 Waste Port Port | 34.89        | .0000   |               |     |        |
| (Gross: 104,680     | Tare: 34,900 |         |               |     |        |
|                     |              | per TON | Net: 69,780 ] |     |        |

  
Customer signature

Generator

COMMENT: PACIFIC TRANSPORT 6

POPT1S602857

U  
VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330  
Telephone : 541-745-2018

August 16, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 11:06  
Time out : 11:43  
Ticket No.: 560564  
Site No.: 1 COFFIN BUTTE LANDF  
Truck No.: 1  
Card ID EUDLAY1  
Origin 16  
Manifest # F32Y26606

| Commodity              | Units                | Rate          | Waste       | Tax | Amount |
|------------------------|----------------------|---------------|-------------|-----|--------|
| 150 Quate Port Port    | 34.23                | .0000 per TON |             |     |        |
| Gross: 187,300 Man.Wt. | Tare: 38,840 Man.Wt. |               | Net: 68,460 |     |        |

*Brook*  
Customer signature

Generator

COMMENT: CELORIE 19

U  
VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

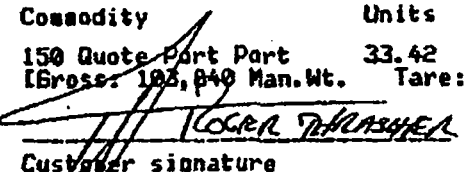
Telephone : 541-745-2018

August 16, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 11:43  
Time out : 11:44  
Ticket No.: 560565  
Site 1 COFFIN BUTTE LANDF  
Truck No.: 9  
Card ID EUDLAY9  
Origin 16  
Manifest # F32Y26606

| Commodity               | Units | Rate         | Waste   | Tax | Amount        |
|-------------------------|-------|--------------|---------|-----|---------------|
| 150 Quote Port Port     | 33.42 | .0000        |         |     |               |
| (Gross: 105,840 Man.Wt. |       | Tare: 37,000 |         |     |               |
|                         |       |              | per TON |     | Net: 66,840 ] |

  
Customer signature

Generator

COMMENT: CELORIE 18

POPT1S602859

MUG

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 16, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 11:30  
Time out : 11:53  
Ticket No.: 560577  
Site 1 COFFIN BUTTE LANDF  
Truck No.: 2  
Card ID EUDLAY2  
Origin 16  
Manifest # F32Y26606

| Commodity           | Units        | Rate    | Waste         | Tax | Amount |
|---------------------|--------------|---------|---------------|-----|--------|
| 150 Quote Port Port | 32.93        | .0000   |               |     |        |
| (Gross: 104,460     | Tare: 38,600 |         |               |     |        |
|                     |              | per TON |               |     |        |
|                     |              |         | Net: 55,860 J |     |        |

Customer signature

Generator

COMMENT: CELORIE 8

POPT1S602860

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 16, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 11:47  
Time out : 11:58  
Ticket No.: S60582  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 1  
Card ID : EUDLAY1  
Origin : 16  
Manifest # : F32Y26606

| Commodity           | Units        | Rate  |         | \$ Waste      | \$ Tax | \$ Amount |
|---------------------|--------------|-------|---------|---------------|--------|-----------|
| 150 Quote Port Port | 34.66        | .0000 | per TON |               |        |           |
| [Gross: 104,840     | Tare: 35,520 |       |         | Net: 69,320 ] |        |           |

*Mark*  
Customer signature

Generator

COMMENT: CELORIE 16

U  
VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97338

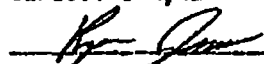
Telephone : 541-745-2018

August 16, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 12:35  
Time out : 12:57  
Ticket No.: 560509  
Site 1 COFFIN BUTTE LANDF  
Truck No.: 1  
Card ID EUDLAY1  
Origin 16  
Manifest # F32Y26606

| Commodity           | Units        | Rate  |         | \$ Waste      | \$ Tax | \$ Amount |
|---------------------|--------------|-------|---------|---------------|--------|-----------|
| 150 Quote Port Port | 34.63        | .0000 | per TON |               |        |           |
| [Gross: 103,460     | Tare: 34,200 |       |         | Net: 69,260 ] |        |           |

  
Customer signature

Generator

COMMENT: PACIFIC TRANSPORT 3

POPT1S602862

U  
VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

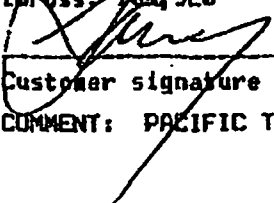
Telephone : 541-745-2018

August 16, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 12:36  
Time out : 12:59  
Ticket No.: 560611  
Site 1 COFFIN BUTTE LANDF  
Truck No.: 2  
Card ID EUDLAY2  
Origin 16  
Manifest # F32Y26606

| Commodity           | Units        | Rate  | Waste         | Tax | Amount |
|---------------------|--------------|-------|---------------|-----|--------|
| 150 Quote Port Port | 35.11        | .0000 | per TON       |     |        |
| Gross: 144,920      | Tare: 34,700 |       | Net: 70,220 ] |     |        |

  
Customer signature

Generator

COMMENT: PACIFIC TRANSPORT 6

POPT1S602863

U  
VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 16, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 14:57  
Time out : 15:02  
Ticket No.: 560681  
Site 1 COFFIN BUTTE LANDF  
Truck No.: 8  
Card ID EUDLAY8  
Origin 16  
Manifest # F32Y26606

| Commodity               | Units        | Rate  | Waste       | Tax | Amount |
|-------------------------|--------------|-------|-------------|-----|--------|
| 150 Quote Port Port     | 39.33        | .0000 |             |     |        |
| (Gross: 116,380 Man.Wt. | Tare: 37,720 |       | per TON     |     |        |
|                         |              |       | Net: 78,660 |     |        |

*Dick Moll*  
Customer signature

Generator

COMMENT: DICK MOLL

POPT1S602864



U  
VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97338

Telephone : 541-745-2018

August 16, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 15:22  
Time out : 15:23  
Ticket No.: 560691  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 5  
Card ID EUDLAY5  
Origin 16  
Manifest # F32Y26606

| Commodity               | Units        | Rate    | Waste         | Tax | Amount |
|-------------------------|--------------|---------|---------------|-----|--------|
| 150 Quote Port Port     | 33.38        | .0000   |               |     |        |
| [Gross: 185,180 Man.Wt. | Tare: 38,420 |         |               |     |        |
|                         |              | per TON | Net: 66,760 ] |     |        |

  
Customer signature

Generator

COMMENT: CELORIE 19

U  
VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

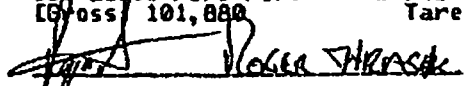
Telephone : 541-745-2018

August 16, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 15:13  
Time out : 15:31  
Ticket No.: 560699  
Site 1 COFFIN BUTTE LANDF  
Truck No.: 4  
Card ID EUDLAY4  
Origin 16  
Manifest # F32Y26606

| Commodity           | Units | Rate          | Waste         | Tax | Amount |
|---------------------|-------|---------------|---------------|-----|--------|
| 150 Quate Port Port | 32.48 | .0000 per TDN |               |     |        |
| Gross 101,880       |       | Tare: 36,920  |               |     |        |
|                     |       |               | Net: 64,960 ] |     |        |

  
Customer signature

Generator

COMMENT: CELORIE 18

POPT1S602866

U  
VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

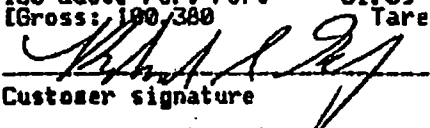
Telephone : 541-745-2018

August 16, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 15:15  
Time out : 15:35  
Ticket No.: S60703  
Site 1 COFFIN BUTTE LANDF  
Truck No.: 1  
Card ID EUDLAY1  
Origin 16  
Manifest # F32Y2E606

| Commodity           | Units        | Rate  |         | \$ Waste      | \$ Tax | \$ Amount |
|---------------------|--------------|-------|---------|---------------|--------|-----------|
| 150 Quote Port Port | 31.09        | .0000 | per TON |               |        |           |
| (Gross: 100,380     | Tare: 38,200 |       |         | Net: 62,180 ] |        |           |

  
Customer signature

Generator

COMMENT: CELORIE 8

POPT1S602867

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 16, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 15:36  
Time out : 15:37  
Ticket No.: 560704  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 8  
Card ID EUDLAY8  
Origin 16  
Manifest # F32Y26606

| Commodity               | Units        | Rate  |         | \$ Waste      | \$ Tax | \$ Amount |
|-------------------------|--------------|-------|---------|---------------|--------|-----------|
| 150 Quote Port Port     | 34.01        | .0000 | per TON |               |        |           |
| [Gross: 103,320 Man.Wt. | Tare: 35,300 |       |         | Net: 68,020 ] |        |           |

*Mark*  
Customer signature

Generator

COMMENT: CELORIE 16

POPT1S602868

6  
VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

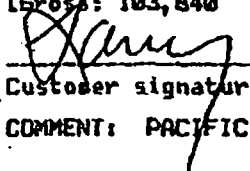
Telephone : 541-745-2018

August 16, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 16:37  
Time out : 16:59  
Ticket No.: 550741  
Site 1 COFFIN BUTTE LANDF  
Truck No.: 2  
Card ID EUDLAY2  
Origin 16  
Manifest # F32Y26606

| Commodity           | Units        | Rate          | Waste       | Tax | Amount |
|---------------------|--------------|---------------|-------------|-----|--------|
| 150 Quate Port Port | 34.69        | .0000 per TON |             |     |        |
| Gross: 103,840      | Tare: 34,460 |               | Net: 69,380 |     |        |

  
Customer signature

Generator

COMMENT: PACIFIC TRANSPORT 6

U  
VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 16, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 16:34  
Time out : 17:01  
Ticket No.: 560742  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 9  
Card ID : EUDLAY9  
Origin : 16  
Manifest # : F32Y26606

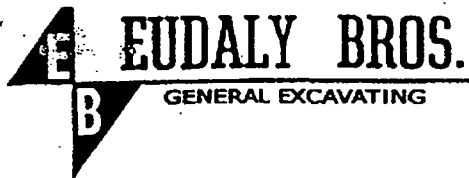
| Commodity           | Units        | Rate  |         | \$ Waste      | \$ Tax | \$ Amount |
|---------------------|--------------|-------|---------|---------------|--------|-----------|
| 150 Quote Port Port | 34.75        | .0000 | per TON |               |        |           |
| [Gross: 103,500     | Tare: 34,000 |       |         | Net: 69,500 ] |        |           |

  
Customer signature

Generator

COMMENT: PAC 5

POPT1S602870



6920 N.E. 42nd AVENUE • PORTLAND, OREGON 97218

TELEPHONE (503) 288-7469

Port Of Portland      Date      8/17/02  
Terminal 1 South Parcel 2  
(area B) Remedial Action  
Project # 24232

Item 3 Environmental Excavation Haul

| Load | Ticket # | Tons        |
|------|----------|-------------|
| 1    | 560769   | 33.41       |
| 2    | 560770   | 32.63       |
| 3    | 560772   | 31.76       |
| 4    | 560775   | 33.27       |
| 5    | 560776   | 34.41       |
| 6    | 560782   | 36.99       |
| 7    | 560783   | 34.61       |
| 8    | 560784   | 34.82       |
| 9    | 560867   | 34.09       |
| 10   | 560869   | 33.47       |
| 11   | 560874   | 31.96       |
| 12   | 560891   | 33.44       |
| 13   | 560892   | 34.30       |
| 14   | 560898   | 31.93       |
| 15   | 560899   | 34.36       |
| 16   | 560900   | 34.92       |
|      |          |             |
|      |          |             |
|      |          |             |
|      |          |             |
|      |          | 540.37 Tons |
|      |          |             |
|      |          |             |
|      |          |             |

540.4

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 17, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 7:46  
Time out : 7:59  
Ticket No.: 560769  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 9  
Card ID EUDLAY9  
Origin 16  
Manifest # F32Y26605

| Commodity           | Units        | Rate    | Waste       | Tax | Amount |
|---------------------|--------------|---------|-------------|-----|--------|
| 150 Quota Port Port | 33.41        | .0000   |             |     |        |
| Gross: 105,740      | Tare: 38,920 | per TON | Net: 66,820 | 1   |        |

  
Customer signature

Generator

COMMENT: CELORIE 19



U  
VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97338

Telephone : 541-745-2018

August 17, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 8:05  
Time out : 8:16  
Ticket No.: 560772  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 7  
Card ID : EUDLAY7  
Origin : 15  
Manifest # : F32Y26505

| Commodity           | Units        | Rate    | Waste         | Tax | Amount |
|---------------------|--------------|---------|---------------|-----|--------|
| 150 Quote Port Port | 31.76        | .0000   |               |     |        |
| Gross: 102,320      | Tare: 38,800 |         |               |     |        |
|                     |              | per TON |               |     |        |
|                     |              |         | Net: 63,520 1 |     |        |

  
Customer signature

Generator

COMMENT: CELORIE 8

U  
VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 17, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 7:52  
Time out : 8:04  
Ticket No.: 560770  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 8  
Card ID : EUDLAY8  
Origin : 16  
Manifest # : F32Y26606

| Commodity           | Units        | Rate    | Waste       | Tax | Amount |
|---------------------|--------------|---------|-------------|-----|--------|
| 150 Quota Port Port | 32.63        | .0000   |             |     |        |
| Gross: 102,820      | Tare: 37,560 | per TON | Net: 65,260 |     |        |

  
Customer signature

Generator

COMMENT: CELORIE 18

U  
VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 17, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 8:15  
Time out : 8:28  
Ticket No.: 560775  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 9  
Card ID : EUDLAY9  
Origin : 16  
Manifest #: F32V26506

| Commodity           | Units        | Rate  | Waste       | Tax | Amount |
|---------------------|--------------|-------|-------------|-----|--------|
| 150 Gtate Port Port | 33.27        | .0000 |             |     |        |
| Gross: 104,760      | Tare: 37,620 |       | per TON     |     |        |
|                     |              |       | Net: 66,540 |     |        |

*[Signature]*  
Customer signature

Generator

COMMENT: CELORIE 10

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 17, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 8:21  
Time out : 8:30  
Ticket No.: 568776  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 8  
Card ID : EUDLAY8  
Origin : 16  
Manifest #: F32Y26506

| Commodity           | Units        | Rate    | Waste       | Tax | Amount |
|---------------------|--------------|---------|-------------|-----|--------|
| 150 Quate Port Port | 34.41        | .0000   |             |     |        |
| (Gross: 104,780     | Tare: 35,960 |         |             |     |        |
|                     |              | per TDN | Nat: 58,820 |     |        |

*Mack*  
Customer signature

Generator

COMMENT: CELORIE 16

U  
VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 17, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 8:42  
Time out : 8:56  
Ticket No.: 560782  
Site No.: 1 COFFIN BUTTE LANDF  
Truck No.: 9  
Card ID EUDLAY9  
Origin 16  
Manifest # F32Y26606

| Commodity           | Units        | Rate  | Waste         | Tax | Amount |
|---------------------|--------------|-------|---------------|-----|--------|
| 150 Quate Port Port | 36.99        | .0000 |               |     |        |
| [Gross: 109,160     | Tare: 35,180 |       | per TON       |     |        |
|                     |              |       | Net: 73,980 ] |     |        |

*[Signature]*  
Customer signature

Generator

COMMENT: DICK MOLL

U  
VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97338

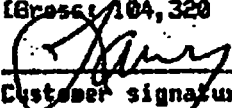
Telephone : 541-745-2018

August 17, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
8920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 8:43  
Time out : 9:00  
Ticket No.: 560783  
Site 1 COFFIN BUTTE LANDF  
Truck No.: 8  
Card ID EUDLAY8  
Origin 16  
Manifest # F32Y26606

| Commodity           | Units | Rate   | Waste | Tax    | Amount |
|---------------------|-------|--------|-------|--------|--------|
| 150 Quota Port Port | 34.61 | .0000  |       |        |        |
| 18 Gross 104,320    | Tare: | 35,100 |       |        |        |
|                     |       |        | Net:  | 69,220 |        |

  
Customer signature  
COMMENT: PACIFIC 6

Generator

U  
VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 17, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 8:45  
Time out : 9:02  
Ticket No.: 560784  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 7  
Card ID : EUDLAY7  
Origin : 16  
Manifest #: F32Y26606

| Commodity           | Units        | Rate    | Waste       | Tax | Amount |
|---------------------|--------------|---------|-------------|-----|--------|
| 150 Quote Port Port | 34.82        | .0000   |             |     |        |
| Gross: 104,260      | Tare: 34,620 | per TON | Net: 69,640 |     |        |

  
Customer signature

Generator

COMMENT: PAC 5

U  
VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330


Telephone : 541-745-2018

August 17, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 12:07  
Time out : 12:23  
Ticket No.: S50867  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 9  
Card ID EUDLAY9  
Origin 16  
Manifest # F32Y26606

| Commodity           | Units        | Rate    | Waste         | Tax | Amount |
|---------------------|--------------|---------|---------------|-----|--------|
| 150 Quota Port Port | 34.89        | .0000   |               |     |        |
| [Gross: 105,880     | Tare: 38,700 | per TON | Net: 68,180 ] |     |        |

  
Customer signature

Generator

COMMENT: CELORIE 19

POPT1S602880



VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330


Telephone : 541-745-2018

August 17, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 12:09  
Time out : 12:25  
Ticket No.: 560859  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 8  
Card ID EUDLAY8  
Origin 16  
Manifest # F32Y26606

| Commodity           | Units        | Rate    | Waste       | Tax | Amount |
|---------------------|--------------|---------|-------------|-----|--------|
| 150 Quota Port Part | 33.47        | .0000   |             |     |        |
| Gross: 104,260      | Tare: 37,320 | per TON |             |     |        |
|                     |              |         | Net: 66,940 |     |        |

  
Customer signature

Generator

COMMENT: CELORIE 18

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97338

Telephone : 541-745-2018

August 17, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6928 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 12:21  
Time out : 12:32  
Ticket No.: 560874  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 7  
Card ID : EUDLAY7  
Origin : 16  
Manifest # : F32Y26606

| Commodity           | Units        | Rate    | Waste | Tax | Amount        |
|---------------------|--------------|---------|-------|-----|---------------|
| 150 Quote Port Port | 31.95        | .0000   |       |     |               |
| [Gross: 102,400     | Tare: 38,560 |         |       |     |               |
|                     |              | per TON |       |     | Net: 63,920 1 |

Customer signature

Generator

COMMENT: CELORIE 8

U  
VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

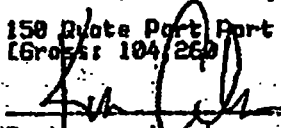
Telephone : 541-745-2018

August 17, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 12:46  
Time out : 13:09  
Ticket No.: 562891  
Site No.: 1 COFFIN BUTTE LANDF  
Truck No.: 7  
Card ID EUDLAY7  
Origin 16  
Manifest # F32Y26606

| Commodity          | Units        | Rate    | Waste       | Tax | Amount |
|--------------------|--------------|---------|-------------|-----|--------|
| 150 Dots Port Port | 33.44        | 0000    |             |     |        |
| (Gross: 104,260)   | Tare: 37,380 | per TON | Net: 66,880 |     |        |

  
Customer signature

Generator

COMMENT: CELDRIE 10

U  
VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 17, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 12:47  
Time out : 13:10  
Ticket No.: 560892  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 6  
Card ID : EUDLAY6  
Origin : 16  
Manifest # : F32Y26606

| Commodity           | Units        | Rate | Waste         | Tax | Amount |
|---------------------|--------------|------|---------------|-----|--------|
| 150 Quate Port Port | 34.30        | 8000 |               |     |        |
| (Gross: 184,160     | Tare: 35,360 |      | per TON       |     |        |
|                     |              |      | Net: 58,600 ] |     |        |

*Mark*  
Customer signature

Generator

COMMENT: CELORIE 16

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 17, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 12:59  
Time out : 13:19  
Ticket No.: 560898  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 9  
Card ID : EUDLAY9  
Origin : 16  
Manifest # : F32V26606

| Commodity           | Units        | Rate  | Waste       | Tax | Amount |
|---------------------|--------------|-------|-------------|-----|--------|
| 150 Quota Port Port | 31.93        | .0000 |             |     |        |
| (Gross: 101,340     | Tare: 37,480 |       | per TON     |     |        |
|                     |              |       | Net: 63,860 |     |        |

*Dick Moll*  
Customer signature

Generator

COMMENT: DICK MOLL

U  
VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97338

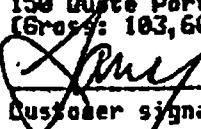
Telephone : 541-745-2018

August 17, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 13:02  
Time out : 13:22  
Ticket No.: 560899  
Site 1 COFFIN BUTTE LANDF  
Truck No.: 5  
Card ID EUDLAY5  
Origin 16  
Manifest # F32Y26606

| Commodity           | Units        | Rate | Waste         | Tax | Amount |
|---------------------|--------------|------|---------------|-----|--------|
| 150 Duffe Port Port | 34.36        | 0000 |               |     |        |
| (Gross: 103,600     | Tare: 34,880 |      | per TON       |     |        |
|                     |              |      | Net: 68,720 ] |     |        |

  
Customer signature

Generator

COMMENT: PACIFIC5

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330


Telephone : 541-745-2018

August 17, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 13:06  
Time out : 13:24  
Ticket No.: 558900  
Site 1 COFFIN BUTTE LANDF  
Truck No.: 4  
Card ID EUDLAY4  
Origin 16  
Manifest # F32Y26606

| Commodity           | Units        | Rate  | Waste         | Tax | Amount |
|---------------------|--------------|-------|---------------|-----|--------|
| 150 Quate Port Port | 34.92        | .0000 |               |     |        |
| [Gross: 184,040     | Tare: 34,200 |       | per TON       |     |        |
|                     |              |       | Net: 59,840 ] |     |        |

  
Customer signature

Generator

COMMENT: PACIFICS

TELEPHONE (503) 288-7469

Port Of Portland                      Date                      8/20/02  
Terminal 1 South Parcel 2  
(area B) Remedial Action  
Project # 24232

### Item 3 Environmental Excavation Haul

[illegible]

273.4



U  
VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 20, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 8:30  
Time out : 9:04  
Ticket No.: 561593  
Site 1 COFFIN BUTTE LANDF  
Truck No.: 1  
Card ID EUDLAY1  
Origin 16  
Manifest # F32Y26606

| Commodity           | Units        | Rate  |         | \$ Waste      | \$ Tax | \$ Amount |
|---------------------|--------------|-------|---------|---------------|--------|-----------|
| 150 Quote Port Port | 33.02        | .0000 | per TON |               |        |           |
| [Gross: 103,020     | Tare: 37,780 |       |         | Net: 66,040 ] |        |           |

*Dick Moll*  
Customer signature

Generator

COMMENT: DICK MOLL

POPT1S602889

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 20, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
\* PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 11:21  
Time out : 11:35  
Ticket No.: 561671  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 1  
Card ID : EUDLAY1  
Origin : 16  
Manifest # : F32Y26606

| Commodity           | Units        | Rate    | Waste         | Tax | Amount |
|---------------------|--------------|---------|---------------|-----|--------|
| 150 Quote Port Port | 34.61        | .0000   |               |     |        |
| (Gross: 105,120     | Tare: 35,900 | per TON |               |     |        |
|                     |              |         | Net: 69,220 ] |     |        |

Customer signature

Generator

COMMENT: CELORIE 16

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

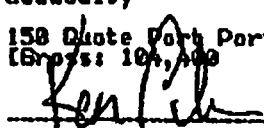
Telephone : 541-745-2018

August 20, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 11:22  
Time out : 11:40  
Ticket No.: 561675  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 2  
Card ID : EUDLAY2  
Origin : 16  
Manifest # : F32Y26606

| Commodity           | Units        | Rate    | Waste       | Tax | Amount |
|---------------------|--------------|---------|-------------|-----|--------|
| 150 Quate Port Port | 33.43        | .0000   |             |     |        |
| (Gross: 10,440)     | Tare: 37,540 |         |             |     |        |
|                     |              | per TON | Net: 66,860 |     |        |

  
Customer signature

Generator

COMMENT: CELORIE 10

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 20, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 12:51  
Time out : 13:07  
Ticket No.: 561723  
Site 1 COFFIN BUTTE LANDF  
Truck No.: 1  
Card ID EUDLAY1  
Origin 16  
Manifest # F32Y26606

| Commodity           | Units        | Rate    | Waste         | Tax | Amount |
|---------------------|--------------|---------|---------------|-----|--------|
| 150 Quote Port Port | 37.85        | 0000    |               |     |        |
| Gross: 113,340      | Tare: 37,620 | per TON | Net: 75,720 J |     |        |

*Dick Moll*  
Customer signature

Generator

COMMENT: DICK MOLL

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330


Telephone : 541-745-2018

August 20, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6928 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 15:07  
Time out : 15:26  
Ticket No.: 561809  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 1  
Card ID : EUDLAY1  
Origin : 16  
Manifest # : F32Y26606

| Commodity           | Units | Rate   | Waste   | Tax    | Amount |
|---------------------|-------|--------|---------|--------|--------|
| 150 Quote Port Part | 33.92 | .0000  |         |        |        |
| (Gross: 104,340)    | Tare: | 36,500 | per TON |        |        |
|                     |       |        | Net:    | 67,840 |        |

  
Customer signature  
COMMENT: CELSIE 5

Generator

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 20, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 15:32  
Time out : 15:45  
Ticket No.: 561819  
Site 1 COFFIN BUTTE LANDF  
Truck No.: 2  
Card ID EUDLAY2  
Origin 16  
Manifest # F32Y26606

| Commodity           | Units        | Rate    | Waste       | Tax | Amount |
|---------------------|--------------|---------|-------------|-----|--------|
| 150 Quota Port Port | 34.05        | .0000   |             |     |        |
| [Gross: 103,740     | Tare: 35,640 |         |             |     |        |
|                     |              | per TON | Net: 68,100 |     |        |

Customer signature

Generator

COMMENT: CELORIE16

6  
VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 20, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS.  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 15:31  
Time out : 15:31  
Ticket No.: 561825  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 1  
Card ID : EUDLAY1  
Origin : 16  
Manifest # : F32T25606

| Commodity           | Units        | Rate    | Waste       | Tax | Amount |
|---------------------|--------------|---------|-------------|-----|--------|
| 150 Quota Port Port | 34.82        | .0000   |             |     |        |
| Gross: 105,300      | Tare: 37,250 |         |             |     |        |
|                     |              | per TON | Net: 68,040 |     |        |

Customer signature

Generator

COMMENT: CELORIE10

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 20, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 15:48  
Time out : 16:00  
Ticket No.: 561832  
Site No.: 1 COFFIN BUTTE LANDF  
Truck No.: 4  
Card ID EUDLAY4  
Origin 16  
Manifest # F32Y26606

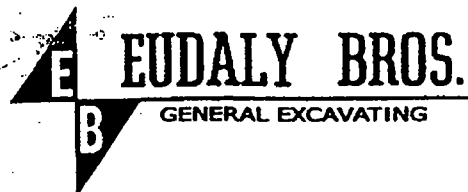
| Commodity           | Units        | Rate    | Waste       | Tax | Amount |
|---------------------|--------------|---------|-------------|-----|--------|
| 150 Quota Port Port | 32.49        | 0000    |             |     |        |
| Gross: 103,260      | Tare: 38,260 | per TON | Net: 64,980 |     |        |

Customer signature

Generator

COMMENT: CELORIE 8





6920 N.E. 42nd AVENUE • PORTLAND, OREGON 97218

TELEPHONE (503) 288-7469

Port Of Portland      Date      8/21/02  
Terminal 1 South Parcel 2  
(area B) Remedial Action  
Project # 24232

Item 3 Environmental Excavation Haul

| Load | Ticket # | Tons        |
|------|----------|-------------|
| 1    | 561913   | 31.83       |
| 2    | 561922   | 34.31       |
| 3    | 561933   | 34.63       |
| 4    | 561947   | 34.17       |
| 5    | 561949   | 34.89       |
| 6    | 561950   | 32.18       |
| 7    | 561982   | 33.00       |
| 8    | 562015   | 34.23       |
| 9    | 562043   | 29.82       |
| 10   | 562053   | 34.37       |
| 11   | 562062   | 33.67       |
| 12   | 562078   | 34.75       |
| 13   | 562079   | 33.96       |
| 14   | 562131   | 31.74       |
| 15   | 562168   | 30.56       |
| 16   | 562184   | 33.54       |
| 17   | 562193   | 33.18       |
| 18   | 562196   | 32.46       |
| 19   | 562212   | 34.15       |
| 20   | 562217   | 34.17       |
|      |          |             |
|      | Totals   | 665.61 Tons |
|      |          |             |

665.6

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 21, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 7:16  
Time out : 7:31  
Ticket No.: 561913  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 1  
Card ID : EUDLAY1  
Origin : 16  
Manifest # : F32Y26606

| Commodity           | Units        | Rate |         | \$ Waste    | \$ Tax | \$ Amount |
|---------------------|--------------|------|---------|-------------|--------|-----------|
| 150 Quate Port Port | 31.83        | 0000 | per TON |             |        |           |
| Gross: 101,500      | Tare: 37,920 |      |         | Net: 63,660 |        |           |

*Keith Moll*  
Customer signature

Generator

COMMENT: KEITH MOLL

POPT1S602898

6  
VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 21, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 8:01  
Time out : 8:17  
Ticket No.: 561933  
Site 1 COFFIN BUTTE LANDF  
Truck No.: 2  
Card ID EUDLAY2  
Origin 16  
Manifest # F32Y26606

| Commodity           | Units        | Rate         | Waste       | Tax | Amount |
|---------------------|--------------|--------------|-------------|-----|--------|
| 150 Docks Port Port | 34.63        | 0000 per TON |             |     |        |
| Gross: 106,400      | Tare: 37,140 |              | Net: 69,260 | 1   |        |

  
Customer signature

Generator

COMMENT: CELORIE18

POPT1S602899

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 21, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 7:45  
Time out : 8:05  
Ticket No.: 561922  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 1  
Card ID EUDLAY1  
Origin 16  
Manifest # F32Y26606

| Commodity           | Units        | Rate          | \$ Waste    | \$ Tax | \$ Amount |
|---------------------|--------------|---------------|-------------|--------|-----------|
| 150 Quote Port Port | 34.31        | .0000 per TON |             |        |           |
| Gross: 107,400      | Tare: 38,780 |               | Net: 58,620 |        |           |

*[Signature]*

Customer signature

Generator

COMMENT: CELORIE19

U  
VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 21, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 8:33  
Time out : 8:50  
Ticket No.: 561947  
Site 1 COFFIN BUTTE LANDF  
Truck No.: 2  
Card ID EUDLAY2  
Origin 16  
Manifest # F32Y26606

| Commodity           | Units        | Rate  | Waste         | Tax | Amount |
|---------------------|--------------|-------|---------------|-----|--------|
| 150 Quote Port/Port | 34.17        | .0000 |               |     |        |
| [Gross: 105,820]    | Tare: 37,480 |       | per TON       |     |        |
|                     |              |       | Net: 68,340 ] |     |        |

*Ken Loh*  
Customer signature

Generator

COMMENT: CELORIE10

U  
VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2010

August 21, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 8:37  
Time out : 8:53  
Ticket No.: 561949  
Site 1 COFFIN BUTTE LANDF  
Truck No.: 4  
Card ID EUDLAY4  
Origin 16  
Manifest # F32Y26606

| Commodity           | Units        | Rate | Waste         | Tax | Amount |
|---------------------|--------------|------|---------------|-----|--------|
| 150 Quota Port Port | 34.89        | 0000 |               |     |        |
| Gross: 105,440      | Tare: 35,660 |      | per TON       |     |        |
|                     |              |      | Net: 69,780 l |     |        |

*Mark*  
Customer signature  
COMMENT: CELORIE16

Generator

U  
VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

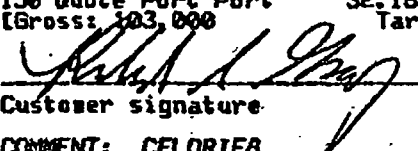
Telephone : 541-745-2018

August 21, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
\* PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 8:34  
Time out : 8:54  
Ticket No.: 361950  
Site No.: 1 COFFIN BUTTE LANDF  
Truck No.: 3  
Card ID EUDLAY3  
Origin 16  
Manifest # F32Y26606

| Commodity           | Units        | Rate    | Waste         | Tax | Amount |
|---------------------|--------------|---------|---------------|-----|--------|
| 150 Quote Port Port | 32.18        | .8000   |               |     |        |
| Gross: 103,000      | Tare: 38,640 | per TON |               |     |        |
|                     |              |         | Net: 64,360 J |     |        |

  
Customer signature

Generator

COMMENT: CELORIEB

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 21, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 9:27  
Time out : 9:50  
Ticket No.: 361982  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 1  
Card ID : EUDLAY1  
Origin : 16  
Manifest # : F32Y26606

| Commodity           | Units        | Rate  | Waste       | Tax | Amount |
|---------------------|--------------|-------|-------------|-----|--------|
| 150 Quate Port Port | 33.00        | .0000 | per TON     |     |        |
| (Gross: 102,580     | Tare: 36,580 |       | Net: 66,000 |     |        |

*[Signature]*  
Customer signature

Generator

COMMENT: CELORIES



U  
VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330


Telephone : 541-745-2018

August 21, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
\* PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 10:36  
Time out : 10:55  
Ticket No.: 562015  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 1  
Card ID EUDLAY1  
Origin 16  
Manifest # F32Y26606

| Commodity           | Units        | Rate |         | \$ Waste      | \$ Tax | \$ Amount |
|---------------------|--------------|------|---------|---------------|--------|-----------|
| 150 Quate Port Port | 34.23        | 8000 | per TON |               |        |           |
| (Gross: 108,040)    | Tare: 39,580 |      |         |               |        |           |
|                     |              |      |         | Net: 68,460 J |        |           |

  
Customer signature

Generator

COMMENT: DIETRICH25

POPT1S602905

ALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 21, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 11:22  
Time out : 11:39  
Ticket No.: 562043  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 1  
Card ID EUDLAY1  
Origin 16  
Manifest # F32Y26606

| Commodity           | Units        | Rate | Waste         | Tax | Amount |
|---------------------|--------------|------|---------------|-----|--------|
| 150 Quote Port Port | 29.82        | 0000 |               |     |        |
| [Gross: 97,320      | Tare: 37,680 |      | per TON       |     |        |
|                     |              |      | Net: 59,640 ] |     |        |

*Keith Moll*  
Customer signature

Generator

COMMENT: KEITH MOLL

POPT1S602906

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 21, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
\* PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 11:45  
Time out : 12:02  
Ticket No.: 562053  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 2  
Card ID : EUDLAY2  
Origin : 16  
Manifest # : F32Y26606

| Commodity                                       | Units        | Rate         | Waste       | Tax | Amount |
|---|--------------|--------------|-------------|-----|--------|
| 150 Quota Port Port<br>(Gross: 105,640 Man.Wt.) | 34.37        | 0000 per TON |             |     |        |
|   | Tare: 35,900 |              | Net: 68,740 |     |        |

*[Signature]*  
Customer signature

Generator

COMMENT: CELORIE18

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

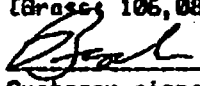
Telephone : 541-745-2018

August 21, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
\*6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 11:50  
Time out : 12:15  
Ticket No.: 562062  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 3  
Card ID EUDLAY3  
Origin 16  
Manifest # F32Y26606

| Commodity           | Units        | Rate    | Waste         | Tax | Amount |
|---------------------|--------------|---------|---------------|-----|--------|
| 150 Quota Port Port | 33.67        | .0000   |               |     |        |
| [Gross: 106,080     | Tare: 38,740 | per TON | Net: 67,340 ] |     |        |

  
Customer signature

Generator

COMMENT: CELORIE19

POPT1S602908

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 21, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 12:22  
Time out : 12:38  
Ticket No.: 562078  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 2  
Card ID : EUDLAY2  
Origin : 16  
Manifest #: F32Y26606

| Commodity           | Units        | Rate | Waste         | Tax | Amount |
|---------------------|--------------|------|---------------|-----|--------|
| 150 Quate Port Port | 34.75        | 0000 |               |     |        |
| Gross: 105,120      | Tare: 35,620 |      | per TON       |     |        |
|                     |              |      | Net: 69,500 J |     |        |

Customer signature

Generator

COMMENT: CELDRIE16

U

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 21, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 12:21  
Time out : 12:40  
Ticket No.: 562079  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 1  
Card ID : EUDLAY1  
Origin : 16  
Manifest # : F32Y26606

| Commodity           | Units        | Rate    | \$ Waste    | \$ Tax | \$ Amount |
|---------------------|--------------|---------|-------------|--------|-----------|
| 150 Quota Port Port | 33.96        | .0000   |             |        |           |
| Gross: 105.150      | Tare: 37,240 |         |             |        |           |
|                     |              | per TON | Net: 67,920 |        |           |

*[Signature]*  
Customer signature

Generator

COMMENT: CELORIE10

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 21, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
5920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 13:46  
Time out : 14:12  
Ticket No.: 562131  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 1  
Card ID : EUDLAY1  
Origin : 16  
Manifest # : F32Y26606

| Commodity           | Units        | Rate |         | \$ Waste    | \$ Tax | \$ Amount |
|---------------------|--------------|------|---------|-------------|--------|-----------|
| 150 Quote Port Port | 31.74        | 0000 | per TON |             |        |           |
| (Gross: 99,980      | Tare: 36,500 |      |         | Net: 53,480 |        |           |

Customer signature

Generator

COMMENT: CELDRIES

POPT1S602911

U  
VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

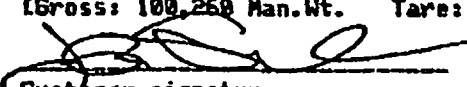
Telephone : 541-745-2018

August 21, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 15:07  
Time out : 15:25  
Ticket No.: 562168  
Site: 1 COFFIN BUTTE LANDF  
Truck No.: 1  
Card ID EUDLAY1  
Origin 16  
Manifest # F32Y26606

| Commodity              | Units        | Rate  |         | \$ Waste      | \$ Tax | \$ Amount |
|------------------------|--------------|-------|---------|---------------|--------|-----------|
| 150 Quote Port Port    | 30.56        | .0000 | per TON |               |        |           |
| Gross: 100,260 Man.Wt. | Tare: 39,140 |       |         |               |        |           |
|                        |              |       |         | Net: 61,120 ] |        |           |

  
Customer signature

Generator

COMMENT: DIETRICH25



U  
VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 21, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6928 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 15:30  
Time out : 15:48  
Ticket No.: 562184  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 3  
Card ID EUDLAY3  
Origin 16  
Manifest # F32Y26606

| Commodity           | Units        | Rate  |         | \$ Waste      | \$ Tax | \$ Amount |
|---------------------|--------------|-------|---------|---------------|--------|-----------|
| 150 Quota Port Port | 33.54        | .0000 | per TON |               |        |           |
| [Gross 104,180      | Tare: 37,100 |       |         | Net: 67,080 ] |        |           |

*[Signature]*  
Customer signature

Generator

COMMENT: CELORIE18

POPT1S602913

U  
VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 21, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
\* PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 15:56  
Time out : 16:02  
Ticket No.: 562193  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 1  
Card ID : EUDLAY1  
Origin : 16  
Manifest #: F32Y26606

| Commodity               | Units        | Rate | Waste         | Tax | Amount |
|-------------------------|--------------|------|---------------|-----|--------|
| 150 Quote Port Port     | 33.18        | 0000 |               |     |        |
| [Gross: 103,860 Man.Wt. | Tare: 37,500 |      | per TON       |     |        |
|                         |              |      | Net: 66,360 ] |     |        |

Keith Moll  
Customer signature

Generator

COMMENT: KEITH MOLL

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330


Telephone : 541-745-2018

August 21, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 15:54  
Time out : 16:11  
Ticket No.: 562196  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 4  
Card ID : EUDLAY4  
Origin : 16  
Manifest #: F32Y26606

| Commodity           | Units        | Rate  | Waste         | Tax | Amount |
|---------------------|--------------|-------|---------------|-----|--------|
| 150 Quota Port Port | 32.46        | .0000 |               |     |        |
| (Gross: 103,560     | Tare: 38,640 |       | per TON       |     |        |
|                     |              |       | Net: 64,920 ] |     |        |

  
Customer signature

Generator

COMMENT: CELORIE19

U  
VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 21, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 16:21  
Time out : 16:40  
Ticket No.: 552212  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 6  
Card ID EUDLAY6  
Origin 16  
Manifest # F32Y26606

| Commodity           | Units        | Rate    | Waste         | Tax | Amount |
|---------------------|--------------|---------|---------------|-----|--------|
| 150 Quote Port Port | 34.15        | .0000   |               |     |        |
| Gross: 103,560      | Tare: 35,360 |         |               |     |        |
|                     |              | per TON | Net: 68,300 ] |     |        |

*Mark*  
Customer signature

Generator

COMMENT: CELORIE16

POPT1S602916

AUG 22 02 00:00

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 21, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 16:30  
Time out : 16:47  
Ticket No.: 562217  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 7  
Card ID : EUDLAY7  
Origin : 16  
Manifest # : F32Y26606

| Commodity           | Units        | Rate    | \$ Waste    | \$ Tax | \$ Amount |
|---------------------|--------------|---------|-------------|--------|-----------|
| 150 Quota Port Port | 34.17        | .0000   |             |        |           |
| (Gross: 105,360     | Tare: 37,020 |         |             |        |           |
|                     |              | per TON |             |        |           |
|                     |              |         | Net: 68,340 |        |           |

*Ken Leh*  
Customer signature

Generator

COMMENT: CELORIE10

POPT1S602917

Port Of Portland      Date      8/22/02  
Terminal 1 South Parcel 2  
(area B) Remedial Action  
Project # 24232

Item 3 Environmental Excavation Haul

| Load | Ticket # | Tons        |
|------|----------|-------------|
| 1    | 562286   | 33.5        |
| 2    | 562299   | 34.45       |
| 3    | 562308   | 33.93       |
| 4    | 562323   | 36.17       |
| 5    | 562330   | 33.22       |
| 6    | 562356   | 34.76       |
| 7    | 562388   | 33.10       |
| 8    | 562402   | 32.93       |
| 9    | 562438   | 33.27       |
| 10   | 562465   | 32.26       |
| 11   | 562477   | 34.30       |
| 12   | 562489   | 34.91       |
| 13   | 562494   | 30.82       |
| 14   | 562543   | 32.52       |
|      |          |             |
|      | Total    | 470.15 Tons |

470.2

U  
VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97338

Telephone : 541-745-2018

August 22, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 7:40  
Time out : 7:56  
Ticket No.: 562286  
Site 1 COFFIN BUTTE LANDF  
Truck No.: 1  
Card ID EUDLAY1  
Origin 16  
Manifest # F32V25506

| Commodity           | Units        | Rate  |         | \$ Waste    | \$ Tax | \$ Amount |
|---------------------|--------------|-------|---------|-------------|--------|-----------|
| ISO Quote Port Port | 73.50        | .0000 | per TON |             |        |           |
| Gross: 104,520      | Tare: 37,320 |       |         | Net: 67,200 | 1      |           |

Customer signature [Signature]

Generator

COMMENT: CELORIE18

POPT1S602919

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 22, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 8:20  
Time out : 8:39  
Ticket No.: 562299  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 1  
Card ID : EUDLAY1  
Origin : 16  
Manifest # : F32Y26606

| Commodity           | Units        | Rate    | Waste         | Tax | Amount |
|---------------------|--------------|---------|---------------|-----|--------|
| 150 Quota Port Port | 34.46        | .0000   |               |     |        |
| [Gross: 104,620     | Tare: 35,700 |         |               |     |        |
|                     |              | per TON |               |     |        |
|                     |              |         | Net: 68,920 ] |     |        |

Customer signature

Generator

COMMENT: CELORIE16

POPT1S602920



VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97338

Telephone : 541-745-2018

August 22, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6928 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDALY  
Time in : 8:36  
Time out : 8:54  
Ticket No.: 562308  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 2  
Card ID EUDALY2  
Origin 16  
Manifest # F32Y26606

| Commodity          | Units        | Rate  | Waste         | Tax | Amount |
|--------------------|--------------|-------|---------------|-----|--------|
| 150 Quate Port Art | 33.93        | .0000 | per TON       |     |        |
| (Gross: 105,300)   | Tare: 37,440 |       | Net: 67,860 ] |     |        |

Customer signature

Generator

COMMENT: CELORIE 10

POPT1S602921

Aug 23 02 00:00

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 22, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
+ 6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 8:49  
Time out : 9:09  
Ticket No.: 562323  
Site 1 COFFIN BUTTE LANDF  
Truck No.: 1  
Card ID EUDLAY1  
Origin 16  
Manifest # F32V26606

| Commodity           | Units        | Rate    | Waste       | Tax | Amount |
|---------------------|--------------|---------|-------------|-----|--------|
| 150 Quote Port Port | 36.17        | .0000   |             |     |        |
| (Gross: 110,180)    | Tare: 37,780 |         |             |     |        |
|                     |              | per TON | Net: 72,340 |     |        |

Customer signature

Generator

COMMENT: DICK MOLL

POPT1S602922

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 22, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 9:05  
Time out : 9:21  
Ticket No.: 562330  
Site 1 COFFIN BUTTE LANDF  
Truck No.: 3  
Card ID EUDLAY3  
Origin 16  
Manifest # F32Y26606

| Commodity           | Units        | Rate  | Waste         | Tax | Amount |
|---------------------|--------------|-------|---------------|-----|--------|
| 150 Quote Port Port | 33.22        | .0000 | per TON       |     |        |
| Gross: 106,040      | Tare: 39,600 |       |               |     |        |
|                     |              |       | Net: 66,440 ] |     |        |

Customer signature

Generator

COMMENT: DIETRICH25

POPT1S602923

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

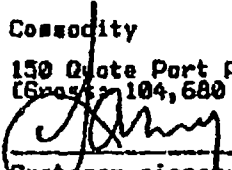
Telephone : 541-745-2018

August 22, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
\* PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 9:38  
Time out : 9:59  
Ticket No.: 562356  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 1  
Card ID : EUDLAY1  
Origin : 16  
Manifest # : F32Y26606

| Commodity           | Units        | Rate  |         | \$ Waste    | \$ Tax | \$ Amount |
|---------------------|--------------|-------|---------|-------------|--------|-----------|
| 150 Quota Port Port | 34.75        | .0000 | per TON |             |        |           |
| (Gross: 104,680     | Tare: 35,160 |       |         | Net: 69,520 |        |           |

  
Customer signature

Generator

COMMENT: PACIFIC TRANSPORT 6

POPT1S602924

U  
VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 22, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 10:49  
Time out : 11:07  
Ticket No.: 562388  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 1  
Card ID EUDLAY1  
Origin 16  
Manifest # F32Y26606

| Commodity           | Units        | Rate    | \$ Waste      | \$ Tax | \$ Amount |
|---------------------|--------------|---------|---------------|--------|-----------|
| 150 Quote Port Port | 33.10        | .0000   |               |        |           |
| [Gross: 104,940     | Tare: 38,740 |         |               |        |           |
|                     |              | per TON | Net: 66,200 ] |        |           |

*[Signature]*  
Customer signature

Generator

COMMENT: CELORIE 19

POPT1S602925

U  
VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 22, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 11:10  
Time out : 11:29  
Ticket No.: 562402  
Site 1 COFFIN BUTTE LANDF  
Truck No.: 1  
Card ID EUDLAY1  
Origin 16  
Manifest # F32Y26606

| Commodity           | Units        | Rate    | Waste         | Tax | Amount |
|---------------------|--------------|---------|---------------|-----|--------|
| 150 Quote Port Port | 32.93        | .0000   |               |     |        |
| Gross: 103,060      | Tare: 37,200 | per TON |               |     |        |
|                     |              |         | Net: 65,860 J |     |        |

*LOISA THERESA*  
Customer signature Generator

COMMENT: CELDRIE18

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 22, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 12:06  
Time out : 12:24  
Ticket No.: 562438  
Site 1 COFFIN BUTTE LANDF  
Truck No.: 1  
Card ID EUDLAY1  
Origin 16  
Manifest # F3226606

| Commodity           | Units        | Rate    | Waste         | Tax | Amount |
|---------------------|--------------|---------|---------------|-----|--------|
| 150 Quote Port Port | 33.27        | .0000   |               |     |        |
| [Gross: 102,040     | Tare: 35,500 | per TON | Net: 66,540 ] |     |        |

*Mark*  
Customer signature

Generator

COMMENT: CELORIE16

POPT1S602927

U  
VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 22, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 12:58  
Time out : 13:17  
Ticket No.: 562465  
Site 1 COFFIN BUTTE LANDF  
Truck No.: 2  
Card ID EUDLAY2  
Origin 16  
Manifest # F3226606

| Commodity           | Units        | Rate  |         | \$ Waste    | \$ Tax | \$ Amount |
|---------------------|--------------|-------|---------|-------------|--------|-----------|
| 150 Quote Port Port | 32.26        | .0000 | per TON |             |        |           |
| (Gross: 103,880     | Tare: 39,360 |       |         | Net: 64,520 |        |           |

  
Customer signature

Generator

COMMENT: DIETRICH 25

POPT1S602928



U  
VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

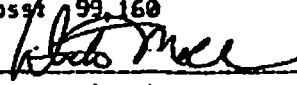
Telephone : 541-745-2018

August 22, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 13:42  
Time out : 14:04  
Ticket No.: 562494  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 5  
Card ID EUDLAY5  
Origin 16  
Manifest # F32Y26606

| Commodity           | Units        | Rate  | Waste         | Tax | Amount |
|---------------------|--------------|-------|---------------|-----|--------|
| 150 Quota Port Port | 30.82        | .0000 |               |     |        |
| [Gross 99.160       | Tare: 37,520 |       | per TON       |     |        |
|                     |              |       | Net: 61,640 ] |     |        |

  
Customer signature

Generator

COMMENT: DICK MOLL

POPT1S602929

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330  
Telephone : 541-745-2018

August 22, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 15:08  
Time out : 15:26  
Ticket No.: 562543  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 1  
Card ID : EUDLAY1  
Origin : 16  
Manifest # : F32Y26606

| Commodity           | Units | Rate          | Waste       | Tax | Amount |
|---------------------|-------|---------------|-------------|-----|--------|
| 150 Quote Port Port | 32.52 | .0000 per TON |             |     |        |
| Gross: 102,140      | Tap:  | 37,100        | Net: 65,040 | 1   |        |

*CELORIE THORNTON*  
Customer signature

Generator

COMMENT: CELORIE18

# **EUDALY BROS.**

**GENERAL EXCAVATING**

6920 N.E. 42nd AVENUE • PORTLAND, OREGON 97218

TELEPHONE (503) 288-7469

Port Of Portland      Date      8/26/02  
Terminal 1 South Parcel 2  
(area B) Remedial Action  
Project # 24232

## **Item 3 Environmental Excavation Haul**

| Load | Ticket # | Tons       |
|------|----------|------------|
| 1    | 563609   | 36.79      |
|      |          |            |
|      |          |            |
|      |          |            |
|      |          | 36.79 Tons |

36.8

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 26, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

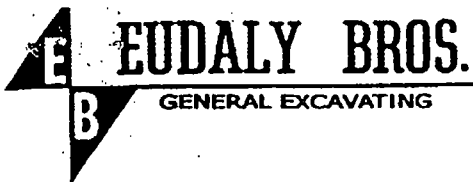
Account No.: EUDLAY  
Time in : 14:26  
Time out : 14:48  
Ticket No.: 563609  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 1  
Card ID : EUDLAY1  
Origin : 16  
Manifest # : F32Y26E06

| Commodity           | Units        | Rate    | Waste       | Tax | Amount |
|---------------------|--------------|---------|-------------|-----|--------|
| 150 Quota Port Port | 36.79        | .0000   |             |     |        |
| Gross: 111,220      | Tare: 37,640 | per TON |             |     |        |
|                     |              |         | Net: 73,580 |     |        |

Customer signature

Generator

COMMENT: DICK MOLL



6920 N.E. 42nd AVENUE • PORTLAND, OREGON 97218  
TELEPHONE (503) 288-7469

Port Of Portland                      Date            8/28/02  
Terminal 1 South Parcel 2  
(area B) Remedial Action  
Project # 24232

Item 3 Environmental Excavation Haul

| Load | Ticket # | Tons        |
|------|----------|-------------|
| 1    | 564038   | 34.22       |
| 2    | 564040   | 32.24       |
| 3    | 564050   | 30.40       |
| 4    | 564053   | 34.83       |
| 5    | 564083   | 35.34       |
| 6    | 564124   | 33.45       |
| 7    | 564134   | 31.77       |
| 8    | 564154   | 33.08       |
| 9    | 564155   | 35.32       |
| 10   | 564193   | 34.88       |
| 11   | 564229   | 33.39       |
| 12   | 564235   | 32.47       |
| 13   | 564257   | 35.43       |
| 14   | 564278   | 34.69       |
|      |          |             |
|      |          |             |
|      |          |             |
|      |          |             |
|      |          | 471.51 Tons |

471.5

U  
VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

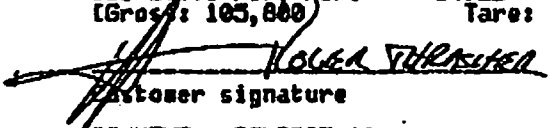
Telephone : 541-745-2018

August 28, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 7:41  
Time out : 7:57  
Ticket No.: 564038  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 1  
Card ID : EUDLAY1  
Origin : 16  
Manifest # : F32Y26606

| Commodity           | Units        | Rate    | Waste       | Tax | Amount |
|---------------------|--------------|---------|-------------|-----|--------|
| 150 Qupts Port Port | 34.22        | .0000   |             |     |        |
| (Gross: 105,800)    | Tare: 37,360 |         |             |     |        |
|                     |              | per TON | Net: 68,440 |     |        |

  
Customer signature

Generator

COMMENT: CELORIE 18

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 28, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 7:59  
Time out : 8:09  
Ticket No.: 564040  
Site 1 COFFIN BUTTE LANDF  
Truck No.: 2  
Card ID EUDLAY2  
Origin 16  
Manifest # F32Y26606

| Commodity           | Units        | Rate  |         | Waste       | Tax | Amount |
|---------------------|--------------|-------|---------|-------------|-----|--------|
| 150 Quote Port Port | 32.24        | .0000 | per TON |             |     |        |
| Gross: 103,280      | Tare: 38,800 |       |         | Net: 64,480 |     |        |

Customer signature

Generator

COMMENT: CELORIE

U  
VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 28, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 8:28  
Time out : 8:44  
Ticket No.: 564050  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 1  
Card ID : EUDLAY1  
Origin : 16  
Manifest #: F32Y26606

| Commodity           | Units        | Rate    | Waste       | Tax | Amount |
|---------------------|--------------|---------|-------------|-----|--------|
| 150 Quote Port Port | 30.40        | .0000   |             |     |        |
| Gross: 90,560       | Tare: 37,760 | per TDN | Net: 50,800 | 1   |        |

*Dick Moll*  
Customer signature

Generator

COMMENT: DICK MOLL



U  
VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97338

Telephone : 541-745-2018

August 28, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6928 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 8:30  
Time out : 8:49  
Ticket No.: 564853  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 2  
Card ID EUDLAY2  
Origin 16  
Manifest # F32Y26606

| Commodity           | Units        | Rate    | Waste       | Tax | Amount |
|---------------------|--------------|---------|-------------|-----|--------|
| 150 Quota Port Port | 34.83        | .0000   |             |     |        |
| Gross: 104,520      | Tare: 34,860 |         |             |     |        |
|                     |              | per TON |             |     |        |
|                     |              |         | Net: 69,660 | 1   |        |

  
Customer signature

Generator

COMMENT: PACIFIC TRANS.6

POPT1S602937

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 28, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 9:41  
Time out : 9:59  
Ticket No.: 564883  
Site 1 COFFIN BUTTE LANDF  
Truck No.: 1  
Card ID EUDLAY1  
Origin 16  
Manifest # F32Y26606

| Commodity           | Units        | Rate    | Waste       | Tax | Amount |
|---------------------|--------------|---------|-------------|-----|--------|
| 150 Quate Port Port | 35.34        | 0000    |             |     |        |
| (Gross: 105,160     | Tare: 34,480 | per TON | Net: 70,680 | 1.  |        |

Customer signature

Generator

COMMENT: PACIFIC TRANSPORTS

POPT1S602938

U  
VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

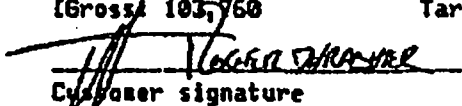
Telephone : 541-745-2018

August 28, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 11:08  
Time out : 11:28  
Ticket No.: 564124  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 1  
Card ID : EUDLAY1  
Origin : 16  
Manifest # : F32Y26606

| Commodity           | Units | Rate   | Waste   | Tax    | Amount |
|---------------------|-------|--------|---------|--------|--------|
| 150 Quote Port Port | 33.45 | .0000  |         |        |        |
| 16 Gross 103,760    | Tare: | 36,860 | per TON |        |        |
|                     |       |        | Net:    | 66,900 | 1      |

  
Customer signature

Generator

COMMENT: CELORIE 18

POPT1S602939

6  
VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

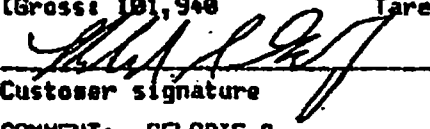
Telephone : 541-745-2818

August 28, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in: 11:26  
Time out: 11:41  
Ticket No.: 564134  
Site: 1 COFFIN BUTTE LANDF  
Truck No.: 2  
Card ID: EUDLAY2  
Origin: 16  
Manifest #: F3225606

| Commodity           | Units        | Rate    | Waste         | Tax | Amount |
|---------------------|--------------|---------|---------------|-----|--------|
| 150 Quota Port Port | 31.77        | .0000   |               |     |        |
| (Gross: 101,940     | Tare: 38,400 | per TON | Net: 63,540 ] |     |        |

  
Customer signature

Generator

COMMENT: CELORIE B

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

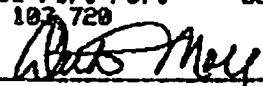
Telephone : 541-745-2018

August 28, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 12:10  
Time out : 12:27  
Ticket No.: 564154  
Site 1 COFFIN BUTTE LANDF  
Truck No.: 1  
Card ID EUDLAY1  
Origin 16  
Manifest # F32Y26606

| Commodity           | Units        | Rate  |         | Waste       | Tax | Amount |
|---------------------|--------------|-------|---------|-------------|-----|--------|
| 150 Quota Port Port | 33.88        | .0000 | per TON |             |     |        |
| [Gross: 107,720     | Tare: 37,360 |       |         | Net: 66,160 |     |        |

  
Customer signature

Generator

COMMENT: DICK MOLL

POPT1S602941

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 28, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 12:12  
Time out : 12:29  
Ticket No.: 564155  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 2  
Card ID : EUDLAY2  
Origin : 16  
Manifest #: F32V26606

| Commodity            | Units        | Rate    | Waste         | Tax | Amount |
|----------------------|--------------|---------|---------------|-----|--------|
| 150 Quicks Port Port | 35.32        | .0000   |               |     |        |
| Gross: 105,300       | Tare: 34,660 | per TON | Net: 70,640 ] |     |        |

Customer signature

Generator

COMMENT: PACIFIC TRANS.6

U  
VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 28, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 13:21  
Time out : 13:40  
Ticket No.: 564193  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 3  
Card ID EUDLAY3  
Origin 16  
Manifest # F32Y26606

| Commodity           | Units        | Rate  |         | \$ Waste      | \$ Tax | \$ Amount |
|---------------------|--------------|-------|---------|---------------|--------|-----------|
| 150 Quote Port Port | 34.88        | .0000 | per TON |               |        |           |
| (Gross: 104,040     | Tare: 34,280 |       |         | Net: 69,760 ] |        |           |

  
Customer signature

Generator

COMMENT: PACIFIC TRANSPORT 5

POPT1S602943

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2918

August 28, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 14:39  
Time out : 14:52  
Ticket No.: 564229  
Site 1 COFFIN BUTTE LANDF  
Truck No.: 1  
Card ID EUDLAY1  
Origin 16  
Manifest # F32V26606

| Commodity           | Units        | Rate  | Waste         | Tax | Amount |
|---------------------|--------------|-------|---------------|-----|--------|
| 150 Quots Port Port | 33.39        | .0000 | per TON       |     |        |
| (Gross: 183,880)    | Tare: 37,100 |       | Net: 56,780 ] |     |        |

  
Customer signature

Generator

COMMENT: CELORIE18



U  
VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

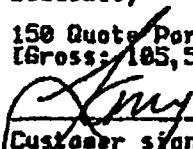
Telephone : 541-745-2018

August 28, 2002

EUDALY BRDS  
DONALD EUDALY INC DBA EUDALY BRDS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 15:47  
Time out : 16:02  
Ticket No.: 564257  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 1  
Card ID EUDLAY1  
Origin 16  
Manifest # F32Y26606

| Commodity           | Units        | Rate          | Waste       | Tax | Amount |
|---------------------|--------------|---------------|-------------|-----|--------|
| 150 Quote Port Port | 35.43        | .0000 per TON |             |     |        |
| Gross: 185,520      | Tare: 34,660 |               | Net: 70,860 |     |        |

  
Customer signature

Generator

COMMENT: PACIFIC TRANSPORT6

POPT1S602945

U  
VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 28, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

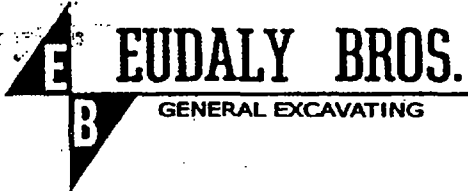
Account No.: EUDLAY  
Time in : 16:37  
Time out : 17:05  
Ticket No.: 564278  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 1  
Card ID EUDLAY1  
Origin 16  
Manifest # F3226606

| Commodity           | Units | Rate   | Waste   | Tax      | Amount |
|---------------------|-------|--------|---------|----------|--------|
| 150 Quota Port Port | 34.69 | .0000  |         |          |        |
| [Gross: 126,700]    | Tare: | 37,320 | per TON |          |        |
|                     |       |        | Net:    | 69,380 ] |        |

*Dick Moll*  
Customer signature

Generator

COMMENT: DICK MOLL



6920 N.E. 42nd AVENUE • PORTLAND, OREGON 97218  
TELEPHONE (503) 288-7469

Port Of Portland                      Date            8/29/02  
Terminal 1 South Parcel 2  
(area B) Remedial Action  
Project # 24232

Item 3 Environmental Excavation Haul

| Load | Ticket # | Tons        |
|------|----------|-------------|
| 1    | 564322   | 33.06       |
| 2    | 564328   | 32.36       |
| 3    | 564344   | 35.40       |
| 4    | 564347   | 33.91       |
| 5    | 564348   | 35.25       |
| 6    | 564425   | 33.55       |
| 7    | 564430   | 32.23       |
| 8    | 564462   | 35.64       |
| 9    | 564470   | 32.60       |
| 10   | 564471   | 35.14       |
| 11   | 564539   | 33.34       |
| 12   | 564546   | 31.97       |
| 13   | 564580   | 35.27       |
| 14   | 564583   | 34.91       |
|      |          |             |
|      |          |             |
|      |          |             |
|      |          |             |
|      |          | 474.63 Tons |

474.6



VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-743-2018

August 29, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 7:38  
Time out : 7:51  
Ticket No.: 564322  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 1  
Card ID : EUDLAY1  
Origin : 15  
Manifest # : F32Y26606

| Commodity           | Units        | Rate  | Waste       | Tax | Amount |
|---------------------|--------------|-------|-------------|-----|--------|
| 150 Quote Port Port | 33.06        | .0000 |             |     |        |
| Gross: 163,180      | Tare: 37,060 |       | per TON     |     |        |
|                     |              |       | Net: 66,120 |     |        |

Customer signature

Generator

COMMENT: CELORIE18

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97338

Telephone : 541-745-2018

August 29, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 7:52  
Time out : 8:03  
Ticket No.: 564328  
Site No.: 1 COFFIN BUTTE LANDF  
Truck No.: 2  
Card ID EUDLAY2  
Origin 16  
Manifest # F32Y26606

| Commodity           | Units        | Rate  | Waste         | Tax | Amount |
|---------------------|--------------|-------|---------------|-----|--------|
| 150 Quote Port Port | 32.36        | .0000 |               |     |        |
| [Gross: 103,300     | Tare: 38,580 |       | per TON       |     |        |
|                     |              |       | Net: 64,720 ] |     |        |

Customer signature

Generator

COMMENT: CELORIEB

Aug 30 02 10:19a

Valley Landfill

1 541 745 3826

P.13

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 29, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 8:26  
Time out : 8:43  
Ticket No.: 564344  
Site No.: 1 COFFIN BUTTE LANDF  
Truck No.: 2  
Card ID EUDLAY2  
Origin 16  
Manifest # F32Y26606

| Commodity           | Units        | Rate          | Waste       | Tax | Amount |
|---------------------|--------------|---------------|-------------|-----|--------|
| 150 Dufft Port Port | 35.40        | .0000 per TON |             |     |        |
| Gross: 105,640      | Tare: 34,840 |               | Net: 70,800 |     |        |

Customer signature

Generator

COMMENT: PACIFIC TRANSPORT6

POPT1S602950

U

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 29, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 8:11  
Time out : 8:48  
Ticket No.: 584347  
Site 1 COFFIN BUTTE LANDF  
Truck No.: 1  
Card ID EUDLAY1  
Origin 16  
Manifest # F32Y26606

| Commodity           | Units        | Rate    | Waste       | Tax | Amount |
|---------------------|--------------|---------|-------------|-----|--------|
| 150 Quota Port Port | 33.91        | .0000   |             |     |        |
| (Gross: 105,560     | Tare: 37,740 |         |             |     |        |
|                     |              | per TON | Net: 67,820 |     |        |

Customer signature

Generator

COMMENT: -DICK MOLL

Aug 30 02 10:19a

Valley Landfill

1 541 745 3826

P.12

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 29, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 8:28  
Time out : 8:49  
Ticket No.: 564348  
Site 1 COFFIN BUTTE LANDF  
Truck No.: 3  
Card ID EUDLAY3  
Origin 16  
Manifest # F32Y26606

| Commodity           | Units        | Rate    | Waste       | Tax | Amount |
|---------------------|--------------|---------|-------------|-----|--------|
| 150 Quote Port Port | 35.25        | .0000   |             |     |        |
| Gross: 185,000      | Tare: 34,500 |         |             |     |        |
|                     |              | per TON | Net: 70,500 |     |        |

  
Customer signature

Generator

COMMENT: PACIFIC TRANSPORTS

POPT1S602952



Aug 30 02 10:18a

Valley Landfill

1 541 745 3826

P-10

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 29, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 11:03  
Time out : 11:21  
Ticket No.: 564425  
Site 1 COFFIN BUTTE LANDF  
Truck No.: 1  
Card ID EUDLAY1  
Origin 16  
Manifest # F3226606

| Commodity           | Units        | Rate          | Waste       | Tax | Amount |
|---------------------|--------------|---------------|-------------|-----|--------|
| 150 Quota Port Port | 33.55        | .0000 per TON |             |     |        |
| (Gross: 103,880     | Tare: 36,880 |               |             |     |        |
|                     |              |               | Net: 67,100 |     |        |

Customer signature

Generator

COMMENT: CELORIE18

POPT1S602953

HUG 30 02 10:18a

Valley Landfill

1 541 745 3826

p.8

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97338

Telephone : 541-745-2018

August 29, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6928 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 11:13  
Time out : 11:26  
Ticket No.: 564430  
Site 1 COFFIN BUTTE LANDF  
Truck No.: 2  
Card ID EUDLAY2  
Origin 16  
Manifest # F32Y26606

| Commodity           | Units        | Rate    | Waste       | Tax | Amount |
|---------------------|--------------|---------|-------------|-----|--------|
| 150 Quote Port Port | 32.23        | .0000   |             |     |        |
| (Gross: 102,928     | Tare: 38,460 |         |             |     |        |
|                     |              | per TON | Net: 64,460 |     |        |

Customer signature

Generator

COMMENT: CELORIEB

POPT1S602954

Aug 30 02 10:18a

Valley Landfill

1 541 745 3826

P.9

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 29, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 12:11  
Time out : 12:30  
Ticket No.: 564462  
Site 1 COFFIN BUTTE LANDF  
Truck No.: 9  
Card ID EUDLAY9  
Origin 16  
Manifest # F32Y26606

| Commodity           | Units        | Rate    | Waste         | Tax | Amount |
|---------------------|--------------|---------|---------------|-----|--------|
| 150 Quota Port Port | 35.64        | .0000   |               |     |        |
| 16 Gross: 105,920   | Tare: 34,640 | per TON | Net: 71,280 J |     |        |

Customer signature

Generator

COMMENT: PACIFIC 6

POPT1S602955

U  
VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97338

Telephone : 541-745-2018

August 29, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 12:17  
Time out : 12:36  
Ticket No.: 564470  
Site No.: 1 COFFIN BUTTE LANDF  
Truck No.: 2  
Card ID EUDLAY2  
Origin 16  
Manifest # F32V26606

| Commodity           | Units        | Rate    | \$ Waste      | \$ Tax | \$ Amount |
|---------------------|--------------|---------|---------------|--------|-----------|
| 150 Quote Port Port | 32.60        | .0000   |               |        |           |
| [Gross: 102,740     | Tare: 37,540 | per TON | Net: 65,200 ] |        |           |

*Dick Moll*  
Customer signature

Generator

COMMENT: DICK MOLL

Aug 30 02 10:18a

Valley Landfill

1 541 745 3826

p.7

U  
VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 29, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 12:19  
Time out : 12:38  
Ticket No.: 564471  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 3  
Card ID EUDLAY3  
Origin 16  
Manifest # F32Y26605

| Commodity           | Units        | Rate  |         | \$ Waste    | \$ Tax | \$ Amount |
|---------------------|--------------|-------|---------|-------------|--------|-----------|
| 150 Quote Port Port | 35.14        | .0000 | per TON |             |        |           |
| Gross: 104,500      | Tare: 34,300 |       |         | Net: 70,200 |        |           |

  
Customer signature

Generator

COMMENT: PACIFIC TRANSPORTS

POPT1S602957

Aug 30 02 10:17a

Valley Landfill

1 541 745 3826

P.2

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 29, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 14:31  
Time out : 14:45  
Ticket No.: 564539  
Site 1 COFFIN BUTTE LANDF  
Truck No.: 1  
Card ID EUDLAY1  
Origin 16  
Manifest # F32Y226606

| Commodity           | Units        | Rate    | Waste       | Tax | Amount |
|---------------------|--------------|---------|-------------|-----|--------|
| 150 Quota Port Port | 33.34        | .0000   |             |     |        |
| (B)oss: 103,580     | Tare: 36,900 |         |             |     |        |
|                     |              | per TON | Net: 66,680 |     |        |

*[Signature]*  
Customer signature

Generator

COMMENT: CELORIE18

POPT1S602958

Aug 30 02 10:17a

Valley Landfill

1 541 745 3826

P.5

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 29, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 14:40  
Time out : 14:56  
Ticket No.: 564546  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 4  
Card ID : EUDLAY4  
Origin : 16  
Manifest # : F32Y25606

| Commodity           | Units        | Rate    | Waste       | Tax | Amount |
|---------------------|--------------|---------|-------------|-----|--------|
| 150 Quota Port Port | 31.97        | .0000   |             |     |        |
| (Gross: 100,000)    | Tare: 38,120 |         |             |     |        |
|                     |              | per TON | Net: 63,940 |     |        |

Customer signature

COMMENT: CELORIEB

Generator

POPT1S602959

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 29, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 16:14  
Time out : 16:15  
Ticket No.: 564580  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 7  
Card ID : EUDLAY7  
Origin : 16  
Manifest # : F32Y26606

| Commodity              | Units | Rate    | Waste | Tax    | Amount |
|------------------------|-------|---------|-------|--------|--------|
| 150 Quota Port Port    | 35.27 | .0000   |       |        |        |
| Gross: 104,900 Man.Wt. | Tare: | 34,360  |       |        |        |
|                        |       | per TON | Net:  | 70,540 | 1      |

Customer signature

Generator

COMMENT: PAC 6



U  
ALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97338

Telephone : 541-745-2818

August 29, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 16:12  
Time out : 16:33  
Ticket No.: 564583  
Site No.: 1 COFFIN BUTTE LANDF  
Truck No.: 2  
Card ID EUDLAY2  
Origin 16  
Manifest # F23Y26606

| Commodity           | Units        | Rate  | Waste         | Tax | Amount |
|---------------------|--------------|-------|---------------|-----|--------|
| 150 Quote Port Port | 34.91        | .0000 |               |     |        |
| [Gross: 183,920     | Tare: 34,100 |       | per TON       |     |        |
|                     |              |       | Net: 69,820 ] |     |        |

  
Customer signature

Generator

COMMENT: PACIFIC TRANSPORT6

### Item 3 Environmental Excavation Haul

| Load | Ticket # | Tons        |
|------|----------|-------------|
| 1    | 564638   | 34.67       |
| 2    | 564642   | 35.26       |
| 3    | 564748   | 32.00       |
| 4    | 564759   | 34.74       |
|      |          |             |
|      |          |             |
|      |          |             |
|      |          |             |
|      |          |             |
|      |          |             |
|      |          |             |
|      |          |             |
|      |          |             |
|      |          |             |
|      |          |             |
|      | Total    | 136.67 Tons |

136.7

U  
VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

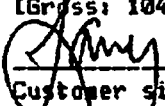
Telephone : 541-745-2018

August 30, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 8:04  
Time out : 8:21  
Ticket No.: 564638  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 1  
Card ID : EUDLAY1  
Origin : 16  
Manifest # : F32Y26606

| Commodity           | Units        | Rate  | Waste         | Tax | Amount |
|---------------------|--------------|-------|---------------|-----|--------|
| 150 Quate Port Port | 34.67        | .0000 |               |     |        |
| [Gross: 104,200     | Tare: 34,860 |       | per TON       |     |        |
|                     |              |       | Net: 69,340 ] |     |        |

  
Customer signature

Generator

COMMENT: PACIFIC TRANS.6

U  
VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330


Telephone : 541-745-2018

August 30, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 8:05  
Time out : 8:24  
Ticket No.: 564642  
Site 1 COFFIN BUTTE LANDF  
Truck No.: 2  
Card ID EUDLAY2  
Origin 16  
Manifest # F32Y26606

| Commodity           | Units        | Rate    | Waste       | Tax | Amount |
|---------------------|--------------|---------|-------------|-----|--------|
| 150 Quote Port Port | 35.26        | .0000   |             |     |        |
| [Gross: 105,200     | Tare: 34,680 |         |             |     |        |
|                     |              | per TON |             |     |        |
|                     |              |         | Net: 70,520 |     |        |

  
Customer signature

Generator

COMMENT: PACIFIC TRANS.5

U  
VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

August 30, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 11:25  
Time out : 11:44  
Ticket No.: 564748  
Site No.: 1 COFFIN BUTTE LANDF  
Truck No.: 1  
Card ID EUDLAY1  
Origin 15  
Manifest # F32Y26605

| Commodity           | Units        | Rate    | Waste         | Tax | Amount |
|---------------------|--------------|---------|---------------|-----|--------|
| 150 Quote Port Port | 32.00        | .0000   |               |     |        |
| [Gross: 101,720     | Tare: 37,720 | per TON | Net: 64,000 ] |     |        |

*Dick Moll*  
Customer signature

Generator

COMMENT: DICK MOLL

U  
VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

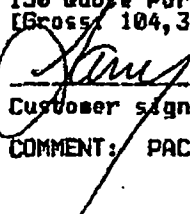
Telephone : 541-745-2018

August 30, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 11:52  
Time out : 12:11  
Ticket No.: 564759  
Site 1 COFFIN BUTTE LANDF  
Truck No.: 1  
Card ID EUDLAY1  
Origin 16  
Manifest # F32Y26606

| Commodity           | Units        | Rate  |         | \$ Waste    | \$ Tax | \$ Amount |
|---------------------|--------------|-------|---------|-------------|--------|-----------|
| 150 Quake Port Port | 34.74        | .0000 | per TON |             |        |           |
| Gross: 104,320      | Tare: 34,840 |       |         | Net: 69,480 |        |           |

  
Customer signature

Generator

COMMENT: PACIFIC TRANS.6

POPT1S602966

Port Of Portland      Date      9/20/02  
Terminal 1 South Parcel 2  
(area B) Remedial Action  
Project # 24232

### Item 3 Environmental Excavation Haul

[illegible]

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

September 20, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 9:51  
Time out : 9:52  
Ticket No.: 570607  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 3  
Card ID : EUDLAY3  
Origin : 16  
Manifest # : F32Y26606

| Commodity  | Units | Rate  | Waste | Tax | Amount |
|--|-------|-------|-------|-----|--------|
| 150 Quote Port Port                                | 34.07 | .0000 |       |     |        |
| [Gross: 106,560 Man.Wt. Tare: 38,420 Net: 68,140 ] |       |       |       |     |        |

Customer signature

Generator



VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

September 20, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 9:52  
Time out : 10:15  
Ticket No.: 570519  
Site 1 COFFIN BUTTE LANDF  
Truck No.: 4  
Card ID EUDLAY4  
Origin 16  
Manifest # F32Y26606

| Commodity           | Units        | Rate          | Waste       | Tax | Amount |
|---------------------|--------------|---------------|-------------|-----|--------|
| 150 Quate Port Port | 24.83        | .0000 per TON |             |     |        |
| Gross: 80,320       | Tare: 30,660 |               | Net: 49,660 |     |        |

*Steve Maservey*  
Customer signature

Generator

COMMENT: MONITOR BLUE

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

September 20, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 9:43  
Time out : 9:56  
Ticket No.: 570609  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 1  
Card ID : EUDLAY1  
Origin : 16  
Manifest # : F32Y26606

| Commodity           | Units | Rate          | Waste       | Tax | Amount |
|---------------------|-------|---------------|-------------|-----|--------|
| 150 Quote Port Port | 33.08 | .0000 per TON |             |     |        |
| Gross: 102,580      |       | Tare: 36,420  |             |     |        |
|                     |       |               | Net: 66,160 |     |        |

*[Signature]*  
Customer signature  
COMMENT: TOM CAT 2

Generator

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

September 20, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 9:54  
Time out : 10:13  
Ticket No.: 570618  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 3  
Card ID : EUDLAY3  
Origin : 16  
Manifest #: F32Y26606

| Commodity           | Units        | Rate         | Waste       | Tax | Amount |
|---------------------|--------------|--------------|-------------|-----|--------|
| 150 Quota Port Port | 23.97        | 0000 per TON |             |     |        |
| Gross: 79,960       | Tare: 32,020 |              | Net: 47,940 |     |        |

*Harley Murray*  
Customer signature

Generator

COMMENT: MINITOR RED

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

September 20, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 14:15  
Time out : 14:31  
Ticket No.: 570750  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 1  
Card ID : EUDLAY1  
Origin : 16  
Manifest # : F32Y26606

| Commodity           | Units        | Rate  | Waste       | Tax | Amount |
|---------------------|--------------|-------|-------------|-----|--------|
| 150 Quate Port Port | 27.68        | .0000 |             |     |        |
| Gross: 87,180       | Tare: 31,820 |       | per TON     |     |        |
|                     |              |       | Net: 55,360 |     |        |

Customer signature

Generator

COMMENT: - MUNITOR 3-RED

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

September 20, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
9900 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in: 14:26  
Time out: 14:38  
Ticket No.: 570755  
Site No.: 1 COFFIN BUTTE LANDF  
Truck No.: 2  
Card ID: EUDLAY2  
Origin: 16  
Manifest #: F32Y26606

| Commodity                              | Units        | Rate    | Waste         | Tax | Amount |
|--|--------------|---------|---------------|-----|--------|
| 150 Quote Port Port<br>(Gross) 107,140 | 34.50        | .0000   |               |     |        |
|  | Tare: 38,140 |         |               |     |        |
|  |              | per TON |               |     |        |
|  |              |         | Net: 69,000 1 |     |        |

Customer signature

Generator

COMMENT: LOTS OF ROCKS 1

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

September 20, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 14:28  
Time out : 14:41  
Ticket No.: 570758  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 3  
Card ID : EUDLAY3  
Origin : 16  
Manifest # : F32Y26606

| Commodity           | Units        | Rate    | Waste       | Tax | Amount |
|---------------------|--------------|---------|-------------|-----|--------|
| 150 Quote Port Port | 29.21        | 0000    |             |     |        |
| Gross: 94,460       | Tare: 36,040 | per TON | Net: 58,420 |     |        |

*T. O. Attew*

Customer signature

Generator

COMMENT: TOM CAT

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

September 20, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 15:13  
Time out : 15:30  
Ticket No.: 570786  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 1  
Card ID : EUDLAY1  
Origin : 16  
Manifest # : F32Y26606

| Commodity           | Units        | Rate          | Waste       | Tax | Amount |
|---------------------|--------------|---------------|-------------|-----|--------|
| 150 Quote Port Port | 27.60        | .0000 per TON |             |     |        |
| Gross: 85,000       | Tare: 29,800 |               | Net: 55,200 |     |        |

*Steve Meservy*  
Customer signature

Generator

COMMENT: MUNITOR BLUE



6920 N.E. 42nd AVENUE • PORTLAND, OREGON 97218

TELEPHONE (503) 288-7469

Port Of Portland      Date      9/21/02  
Terminal 1 South Parcel 2  
(area B) Remedial Action  
Project # 24232

Item 3 Environmental Excavation Haul

| Load | Ticket # | Tons        |
|------|----------|-------------|
| 1    | 570842   | 36.18       |
| 2    | 570845   | 31.13       |
| 3    | 570856   | 27.01       |
| 4    | 570857   | 30.34       |
| 5    | 570858   | 31.64       |
| 6    | 570870   | 30.66       |
| 7    | 570957   | 32.77       |
| 8    | 570958   | 31.04       |
| 9    | 570977   | 30.10       |
| 10   | 571034   | 29.04       |
| 11   | 571035   | 29.21       |
| 12   | 571037   | 29.35       |
| 13   | 571061   | 30.31       |
|      |          |             |
|      |          |             |
|      |          |             |
|      |          |             |
|      |          |             |
|      |          |             |
|      |          | 398.78 Tons |
|      |          |             |
|      |          |             |
|      |          |             |



Sep 23 02 08:10a

Valley Landfills

1 541 745 3020

P-17

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

September 21, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6928 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 7:51  
Time out : 8:05  
Ticket No.: 570842  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 2  
Card ID EUDLAY2  
Origin 16  
Manifest # F32Y26606

| Commodity          | Units        | Rate    | Waste       | Tax | Amount |
|--------------------|--------------|---------|-------------|-----|--------|
| 150 Duct Port Port | 36.18        | .0000   |             |     |        |
| Gross: 110,820     | Tare: 38,460 | per TON |             |     |        |
|                    |              |         | Net: 72,360 |     |        |

Customer signature

Generator

COMMENT: LOTS OF ROCKS

POPT1S602977

U

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

September 21, 2002

EUDALY BROS  
EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in: 8:06  
Time out: 8:19  
Ticket No.: 570845  
Site: 1 COFFIN BUTTE LANDF  
Truck No.: 9  
Card ID: EUDLAY9  
Origin: 16  
Manifest #: F32Y25605

| Commodity           | Units | Rate    | Waste       | Tax | Amount |
|---------------------|-------|---------|-------------|-----|--------|
| 150 Quote Port Port | 31.13 | .0000   |             |     |        |
| Gross: 98,680       |       |         |             |     |        |
| Tare: 36,420        |       |         |             |     |        |
|                     |       | per TON |             |     |        |
|                     |       |         | Net: 62,260 |     |        |

*Tan Arthur*  
Customer signature

Generator

COMMENT: TOMCAT

Sep 23 02 08:09a

Valley Landfills

541 745 2018

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

September 21, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6928 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 8:55  
Time out : 9:16  
Ticket No.: 570856  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 2  
Card ID : EUDLAY2  
Origin : 16  
Manifest # : F32Y226506

| Commodity           | Units        | Rate    | Waste       | Tax | Amount |
|---------------------|--------------|---------|-------------|-----|--------|
| 150 Duels Port Port | 27.01        | 0000    |             |     |        |
| Gross: 95,860       | Tare: 41,840 | per TON | Net: 54,020 |     |        |

Customer Signature

Generator

COMMENT: MORSE BROS

POPT1S602979

Sep 23 02 08:09a

valley Landfill

1 371 745 3020

U  
VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

September 21, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 8:58  
Time out : 9:17  
Ticket No.: 570857  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 3  
Card ID : EUDLAY3  
Origin : 16  
Manifest # : F32Y6606

| Commodity           | Units        | Rate    | Waste       | Tax | Amount |
|---------------------|--------------|---------|-------------|-----|--------|
| 150 Quate Port Port | 30.34        | .0000   |             |     |        |
| (Gross: 97,440      | Tare: 36,760 |         |             |     |        |
|                     |              | per TON |             |     |        |
|                     |              |         | Net: 60,680 |     |        |

*Shirley Bertman*  
Customer signature

Generator

COMMENT: TAYLOR BLUE

POPT1S602980

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

September 21, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 9:00  
Time out : 9:19  
Ticket No.: 1 570450  
Truck No.: 4 COFFIN BUTTE LANDF  
Card ID : EUDLAY4  
Origin : 16  
Manifest # : F32Y26606

| Commodity           | Units        | Rate    | Waste         | Tax | Amount |
|---------------------|--------------|---------|---------------|-----|--------|
| 150 Quote Port Port | 31.64        | .0000   |               |     |        |
| [Gross: 100,500     | Tare: 37,300 | per TON | Net: 63,200 ] |     |        |

*[Signature]*

Customer signature

Generator

COMMENT: NQRSE2287

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

September 21, 2002

EUDALY BROS.  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 9:29  
Time out : 9:41  
Ticket No.: 570870  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 2  
Card ID : EUDLAY2  
Origin : 16  
Manifest #: F32Y26606

| Commodity           | Units        | Rate    | Waste       | Tax | Amount |
|---------------------|--------------|---------|-------------|-----|--------|
| 150 Quate Port Port | 30.66        | .0000   |             |     |        |
| (Gross: 103,260)    | Tare: 41,940 | per TON |             |     |        |
|                     |              |         | Net: 61,320 |     |        |

Customer signature

Generator

COMMENT: TAYLOR9702

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

September 21, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 12:03  
Time out : 12:16  
Ticket No.: 570957  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 2  
Card ID EUDLAY2  
Origin 16  
Manifest # F32Y26606

| Commodity           | Units | Rate         | Waste       | Tax | Amount |
|---------------------|-------|--------------|-------------|-----|--------|
| 150 Quote Port Port | 32.77 | .0000        | per TON     |     |        |
| (Gross) 183,740     |       | Tare: 38,200 |             |     |        |
|                     |       |              | Net: 65,540 |     |        |

Customer signature

Generator

COMMENT: LOTS OF ROCKS

Sep 23 02 08:08a

Valley Landfills

1 341 745 3023

U  
VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

September 21, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 12:04  
Time out : 12:18  
Ticket No.: 570958  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: EUDLAY  
Card ID : 16  
Origin :  
Manifest # F32Y26606

| Commodity           | Units        | Rate    | Waste       | Tax | Amount |
|---------------------|--------------|---------|-------------|-----|--------|
| 150 Quote Port Port | 31.04        | 0000    |             |     |        |
| (Gross: 98,160      | Tare: 36,080 | per TON | Net: 62,080 | 1   |        |

*Tan Othman*  
Customer signature

Generator

COMMENT: TONCAT

POPT1S602984



SEP 27 02 10:17

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

September 23, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 9:37  
Time out : 9:58  
Ticket No.: 571391  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 2  
Card ID : EUDLAY2  
Origin : 16  
Manifest # : F32Y26606

| Commodity           | Units        | Rate    | Waste       | Tax | Amount |
|---------------------|--------------|---------|-------------|-----|--------|
| 150 Quote Port Port | 25.69        | .0000   |             |     |        |
| Gross: 83,460       | Tare: 32,080 | per TON |             |     |        |
|                     |              |         | Net: 51,380 |     |        |

*[Signature]*  
Customer signature

Generator

COMMENT: MUNITOR RED

POPT1S602985

SEP 21 02 10:10  
VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

September 23, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 9:36  
Time out : 10:00  
Ticket No.: 571392  
Site 1 COFFIN BUTTE LANDF  
Truck No.: 1  
Card ID EUDLAY1  
Origin 16  
Manifest # F32Y26606

| Commodity           | Units        | Rate  |         | \$ Waste      | \$ Tax | \$ Amount |
|---------------------|--------------|-------|---------|---------------|--------|-----------|
| 150 Quote Port Port | 29.59        | .0000 | per TON |               |        |           |
| [Gross: 91,300      | Tare: 32,120 |       |         | Net: 59,180 J |        |           |

Steve Meservey  
Customer signature

Generator

COMMENT: MUNITOR YELLOW

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

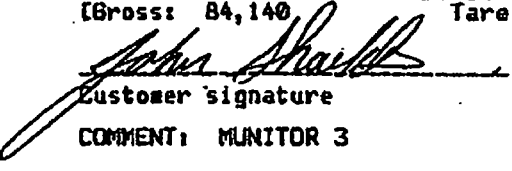
Telephone : 541-745-2018

September 23, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 14:10  
Time out : 14:31  
Ticket No.: 571516  
Site 1 COFFIN BUTTE LANDF  
Truck No.: 3  
Card ID EUDLAY3  
Origin 16  
Manifest # F32Y26606

| Commodity           | Units        | Rate  | Waste         | Tax | Amount |
|---------------------|--------------|-------|---------------|-----|--------|
| 150 Quote Port Port | 26.14        | .0000 |               |     |        |
| Gross: 84,140       | Tare: 31,860 |       | per TON       |     |        |
|                     |              |       | Net: 52,280 ] |     |        |

  
Customer signature

Generator

COMMENT: MUNITOR 3

POPT1S602987

HART CROWSER, INC.

OCT 7 2002

Portland Office

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

September 24, 2002

EUDALY BROS.  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in: 14:59  
Time out: 15:17  
Ticket No.: 571857  
Site: 1 COFFIN BUTTE LANDF  
Truck No.: 1  
Card ID: EUDLAY1  
Origin: 16  
Manifest #: F32Y26606

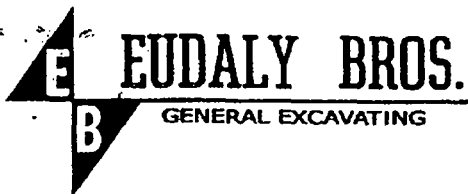
| Commodity           | Units        | Rate         | Waste       | Tax | Amount |
|---------------------|--------------|--------------|-------------|-----|--------|
| 150 Quote Port Port | 25.21        | 0000 per TON |             |     |        |
| Gross: 82,740       | Tare: 32,320 |              | Net: 50,420 |     |        |

Customer signature

Generator

COMMENT: MUNITOR RED 3

POPT1S602988



6920 N.E. 42nd AVENUE • PORTLAND, OREGON 97218

TELEPHONE (503) 288-7469

Port Of Portland      Date      9/25/02  
Terminal 1 South Parcel 2  
(area B) Remedial Action  
Project # 24232

Item 3 Environmental Excavation Haul

| Load | Ticket # | Tons        |
|------|----------|-------------|
| 1    | 571671   | 26.53       |
| 2    | 571690   | 26.53       |
| 3    | 571691   | 29.47       |
| 4    | 571695   | 33.14       |
| 5    | 571740   | 14.94       |
| 6    | 571820   | 28.42       |
| 7    | 571826   | 24.12       |
| 8    | 571868   | 32.92       |
| 9    | 571872   | 31.24       |
|      |          |             |
|      |          |             |
|      |          |             |
|      |          |             |
|      |          |             |
|      |          |             |
|      |          |             |
|      |          |             |
|      |          |             |
|      |          |             |
|      |          |             |
|      |          | 247.31 Tons |
|      |          |             |
|      |          |             |
|      |          |             |
|      |          |             |

Sep 25 02 08:32

VALLEY LANDFILLS

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28872 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

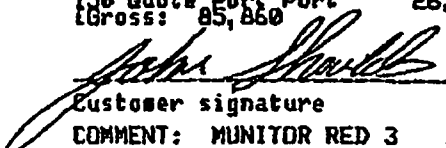
Telephone : 541-745-2018

September 24, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 9:23  
Time out : 9:41  
Ticket No.: 571671  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 1  
Card ID : EUDLAY1  
Origin : 16  
Manifest # : F32Y26606

| Commodity           | Units        | Rate    | Waste       | Tax | Amount |
|---------------------|--------------|---------|-------------|-----|--------|
| 150 Quota Port Port | 26.53        | 0000    |             |     |        |
| Gross: 85,860       | Tare: 32,800 | per TON | Net: 53,060 |     |        |

  
Customer signature

Generator

COMMENT: MUNITOR RED 3

POPT1S602990

Sep 25 02 08:32a

Valley Landfills

1 371 715 0020

F-0

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

September 24, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 9:51  
Time out : 10:11  
Ticket No.: 571690  
Site 1 COFFIN BUTTE LANDF  
Truck No.: 2  
Card ID EUDLAY2  
Manifest # F32Y26608

| Commodity           | Units | Rate   | Waste   | Tax    | Amount |
|---------------------|-------|--------|---------|--------|--------|
| 150 Quote Port Port | 26.53 | .0000  |         |        |        |
| [Gross: 92,060      | Tare: | 39,000 | per TON |        |        |
|                     |       |        | Net:    | 53,060 | ]      |

Customer signature

Generator

COMMENT: HECHMAN31

POPT1S602991

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
 28972 COFFIN BUTTE ROAD  
 CORVALLIS, OR 97330

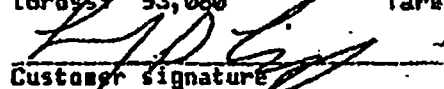
Telephone : 541-745-2018

September 24, 2002

EUDALY BROS  
 DONALD EUDALY INC DBA EUDALY BROS  
 6920 NE 42ND AVE  
 PORTLAND, OR 97218

Account No.: EUDLAY  
 Time in : 9:53  
 Time out : 10:13  
 Ticket No.: 571691  
 Site : 1 COFFIN BUTTE LANDF  
 Truck No.: 3  
 Card ID : EUDLAY3  
 Origin : 16  
 Manifest # : F32Y26606

| Commodity           | Units        | Rate         | Waste         | Tax | Amount |
|---------------------|--------------|--------------|---------------|-----|--------|
| 150 Quats Port Port | 29.47        | 0000 per TON |               |     |        |
| [Gross: 93,080      | Tara: 34,140 |              | Net: 58,940 ] |     |        |

Customer signature 

Generator

COMMENT: SCAPPOOSE41



VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

September 24, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 9:56  
Time out : 10:17  
Ticket No.: 571695  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 4  
Card ID : EUDLAY4  
Origin : 16  
Manifest # : F32Y26606

| Commodity           | Units | Rate   |         | \$ Waste    | \$ Tax | \$ Amount |
|---------------------|-------|--------|---------|-------------|--------|-----------|
| 150 Quote Port Port | 33.14 | .0000  | per TON |             |        |           |
| Gross: 103,480      | Fare: | 37,200 |         | Net: 66,280 |        |           |

Customer signature

Generator

COMMENT: GULICK203

Sep 25 02 08:53a

Valley Landfills

1 371 110 3020

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

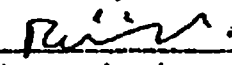
September 24, 2002

\*\*\* DUPLICATE TICKET \*\*\*

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 11:54  
Time out : 12:09  
Ticket No.: 571740  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 1  
Card ID EUDLAY1  
Origin 16  
Manifest # F32Y26606

| Commodity           | Units        | Rate    | Waste       | Tax | Amount |
|---------------------|--------------|---------|-------------|-----|--------|
| 150 Quote Port Port | 14.94        | .0000   |             |     |        |
| Gross: 55,140       | Tare: 25,260 | per TON | Net: 29,880 |     |        |

  
Customer signature

Generator

COMMENT: ANDERSON25

POPT1S602994

Sep 25 02 08:53a

VALLEY LANDFILLS, INC.

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

September 24, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 14:05  
Time out : 14:18  
Ticket No.: 571820  
Site No.: 1 COFFIN BUTTE LANDF  
Truck No.: 1  
Card ID EUDLAY1  
Origin 16  
Manifest # F32Y26606

| Commodity           | Units        | Rate    | Waste       | Tax | Amount |
|---------------------|--------------|---------|-------------|-----|--------|
| 150 Quote Port Port | 28.42        | .0000   |             |     |        |
| Gross: 93,640       | Tare: 38,800 |         |             |     |        |
|                     |              | per TON |             |     |        |
|                     |              |         | Net: 56,840 |     |        |

Customer signature  
COMMENT: HECKMAN

Generator

POPT1S602995

U  
VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97338

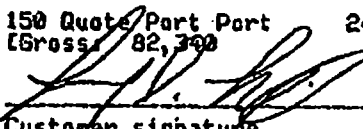
Telephone : 541-745-2018

September 24, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 14:05  
Time out : 14:23  
Ticket No.: 571826  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 2  
Card ID : EUDLAY2  
Origin : 16  
Manifest #: F32Y26606

| Commodity           | Units        | Rate  | Waste         | Tax | Amount |
|---------------------|--------------|-------|---------------|-----|--------|
| 150 Quote Part Part | 24.12        | .0000 |               |     |        |
| Gross: 82,300       | Tare: 34,100 |       | per TON       |     |        |
|                     |              |       | Net: 48,240 ] |     |        |

  
Customer signature

Generator

COMMENT: SCAPPOOSE 41

SEP 25 02 06:53

VALLEY LANDFILLS

VALLEY LANDFILLS

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

September 24, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 15:13  
Time out : 15:37  
Ticket No.: 571868  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 2  
Card ID : EUDLAY2  
Origin : 15  
Manifest #: F32Y26606

| Commodity           | Units        | Rate    | Waste       | Tax | Amount |
|---------------------|--------------|---------|-------------|-----|--------|
| 150 Route Port Port | 32.92        | .0000   |             |     |        |
| Gross: 103,620      | Tare: 37,780 |         |             |     |        |
|                     |              | per TON |             |     |        |
|                     |              |         | Net: 65,840 |     |        |

Customer signature

Generator

COMMENT: GULICK 203

POPT1S602997

Sep 25 02 08:53a

Valley Landfills

541-745-2018

P.12

VALLEY LANDFILLS, INC. COFFIN BUTTE LF  
28972 COFFIN BUTTE ROAD  
CORVALLIS, OR 97330

Telephone : 541-745-2018

September 24, 2002

EUDALY BROS  
DONALD EUDALY INC DBA EUDALY BROS  
6920 NE 42ND AVE  
PORTLAND, OR 97218

Account No.: EUDLAY  
Time in : 15:31  
Time out : 15:51  
Ticket No.: 571872  
Site : 1 COFFIN BUTTE LANDF  
Truck No.: 1  
Card ID : EUDLAY1  
Origin : 16  
Manifest # : F32Y26606

| Commodity          | Units | Rate    | \$ Waste      | \$ Tax | \$ Amount |
|--------------------|-------|---------|---------------|--------|-----------|
| 150 Gate Port Port | 31.24 | .0000   |               |        |           |
| [Gross] 100,000    | Tare: | 37,540  |               |        |           |
|                    |       | per TON | Net: 62,480 ] |        |           |

Customer signature

Generator

COMMENT: DICK MOLL

POPT1S602998

**APPENDIX E**  
**QA REVIEW AND ANALYTICAL LABORATORY REPORTS**

## APPENDIX E

### QA REVIEW AND ANALYTICAL LABORATORY REPORTS

Fifty-five soil samples (plus three duplicates) were collected between August 1, 2002 and September 23, 2002. All soil samples (except B-52A) were analyzed for diesel and oil-range petroleum hydrocarbons by Northwest Method NWTPH-Dx. One soil sample (B-52A) was analyzed for Toxicity Characteristic Leaching Procedure (TCLP) metals by EPA Method 1311/6000/7000 Series. Selected soil samples were analyzed for polynuclear aromatic hydrocarbons (PAHs) by EPA Method 8270M-SIM.

The following criteria were evaluated in the standard data quality review process:

- Holding times;
- Method blanks;
- Surrogate recoveries;
- Laboratory control sample/laboratory control sample duplicate (LCS/LCSD) recoveries;
- Matrix spike/matrix spike duplicate (MS/MSD) recoveries; and
- Laboratory duplicate relative percent difference (RPD).

#### ***Diesel and Oil-Range Petroleum Hydrocarbons***

**August 9, 2002.** All required holding times were met. No method blank contamination was detected. Surrogate and LCS recoveries were within control limits. For laboratory duplicate sample (2080365-DUP1), the analysis was not controlled on RPD values due to sample concentrations less than 5 times the reporting limit. The spike recovery for laboratory duplicate sample (2080365-DUP2) was outside control limits due to a non-homogenous sample matrix.

**August 12, 2002.** All required holding times were met. No method blank contamination was detected. Surrogate and LCS recoveries were within control limits. For laboratory duplicate sample (2080365-DUP1), the analysis was not controlled on RPD values due to sample concentrations less than five times the reporting limit. The spike recovery for laboratory duplicate sample (2080365-DUP2) was outside control limits due to a non-homogenous sample matrix. For laboratory duplicate sample (2080423-DUP1), the detected hydrocarbons had non-petroleum peaks or elution patterns that suggest the presence of biogenic interference.



**August 16, 2002.** All required holding times were met. No method blank contamination was detected. LCS recoveries were within control limits. For samples T12NW (3-10) and T12W (3-10), the detected hydrocarbons have distinct peaks that have elution patterns similar to that of PAH's, as well as other extraneous peaks that may be biogenic interference. For sample T1-2S (0-3), the detected hydrocarbons have non-petroleum peaks or elution patterns that suggest the presence of biogenic interference. The reporting limits for sample SP-A3 and laboratory duplicate (2080628-DUP2) were raised due for dilution necessary for analysis. The surrogate recovery for laboratory duplicate (2080628-DUP2) was outside recovery limits due to matrix interference.

**August 19, 2002.** All required holding times were met. No method blank contamination was detected. Surrogate and LCS recoveries were within control limits. The reporting limits for sample SP2-A3, SP3-A3, SP4-A3, and SP5-A3 were raised due to dilution necessary for analysis.

**August 21, 2002.** All required holding times were met. No method blank contamination was detected. Surrogate and LCS recoveries were within control limits. For sample T1-3W (0-3), the detected hydrocarbons have non-petroleum peaks or elution patterns that suggest the presence of biogenic interference.

**August 22, 2002.** All required holding times were met. No method blank contamination was detected. Surrogate and LCS recoveries were within control limits. For sample 6B and 1W2 Grey, the detected hydrocarbons appear to be due mainly to overlap from the heavy/oil range; however, there is weathered diesel detected as well.

**August 27, 2002.** All required holding times were met. No method blank contamination was detected. The surrogate recovery for LCS (2080097-BS1) and laboratory duplicate sample (2080097-DUP1) was outside North Creek Analytical (NCA) established control limits. The alternate surrogate has been used to validate the sample result.

**August 29, 2002.** All required holding times were met. No method blank contamination was detected. Surrogate, MS, and LCS recoveries were within control limits.

**September 20, 2002.** All required holding times were met. No method blank contamination was detected. Surrogate, MS, and LCS recoveries were within control limits.

**September 23, 2002.** All required holding times were met. No method blank contamination was detected. Surrogate, MS, and LCS recoveries were within control limits.

### **TCLP Metals**

**August 1, 2002.** All required holding times were met. No method blank contamination was detected. LCS, LCS Dup, and MS recoveries were within control limits. The mercury RPD value for matrix spike duplicate sample (2H05010-MSD1) was outside the established control limit. Review of associated Quality Control (QC) indicates the high RPD does not represent an out-of control condition for the batch.

### **PAHs**

**August 9, 2002.** All required holding times were met. No method blank contamination was detected. Surrogate, LCS, MS and MS Dup recoveries were within control limits.

**August 12, 2002.** All required holding times were met. No method blank contamination was detected. Surrogate, LCS, and MS recoveries were within control limits. The reporting limits for samples 1W, 1E, 1B South, 1B South Dup, matrix spike (2080397-MS1), and matrix spike duplicate (2080397-MSD1) were raised due to dilution necessary for analysis. A higher concentration of heavier molecular weight PAH's were detected in matrix spike duplicate sample (2080397-MSD1). The spike recovery for benzo(a)pyrene and pyrene in matrix spike duplicate sample (2080397-MSD1) was outside control limits due to a non-homogenous sample matrix

**August 16, 2002.** All required holding times were met. No method blank contamination was detected. Surrogate, LCS, MS, and MS Dup recoveries were within control limits. The reporting limits for sample SP-A3 was raised due to dilution necessary for analysis.

**August 19, 2002.** All required holding times were met. No method blank contamination was detected. Surrogate, LCS, and LCS Dup recoveries were within control limits. The spike recovery for chrysene and indeno (1,2,3-cd) pyrene for matrix spike sample (2H20034-MS1) and matrix spike duplicate sample (220034-MSD1) were outside NCA established control limits due to sample matrix interference. The internal standard associated with chrysene and indeno (1,2,3-cd) pyrene for matrix spike sample (2H22019-MS1) was outside normal acceptance criteria. The internal standard associated with chrysene, fluorene, and indeno (1,2,3-cd) pyrene for matrix spike duplicate sample

(2H22019-MSD1) was outside normal acceptance criteria. Values associated with chrysene, fluorene, and indeno (1,2,3-cd) pyrene for this sample set has been flagged as estimated.

**August 21, 2002.** All required holding times were met. No method blank contamination was detected. Surrogate, LCS, and LCS Dup recoveries were within control limits. The internal standard associated with chrysene and indeno (1,2,3-cd) pyrene for matrix spike sample (2H22019-MS1) was outside normal acceptance criteria. The internal standard associated with chrysene, fluorene, and indeno (1,2,3-cd) pyrene for matrix spike duplicate sample (2H22019-MSD1) was outside normal acceptance criteria. Values associated with chrysene, fluorene, and indeno (1,2,3-cd) pyrene for this sample set has been flagged as estimated.

**August 22, 2002.** All required holding times were met. No method blank contamination was detected. Surrogate, MS, and MS Dup recoveries were within control limits. The RPD value for laboratory duplicate sample (2080077-DUP1) was outside the advisory limit established by NCA.

**August 27, 2002.** All required holding times were met. No method blank contamination was detected. The surrogate recovery for sample T1-3SE2 (0-3), laboratory blank (2080098-BLK1), and matrix spike duplicate (2080098-MSD1) was outside NCA established control limits. The spike recovery for naphthalene and indeno (1,2,3-cd) pyrene for laboratory control spike (2080098-BS-1) was outside of NCA established control limits. Review of associated batch QC indicates the recovery of these analytes does not represent an out-of-control condition for the batch. The alternate surrogate has been used to validate the sample result. The spike recovery for naphthalene and indeno (1,2,3-cd) pyrene for matrix spike (2080098-MSD1) was outside of NCA established control limits due to sample matrix interference.

**August 29, 2002.** All required holding times were met. No method blank contamination was detected. MS and MS Dup recoveries were within control limits. The surrogate recovery for samples TP-2 and TP-4 were outside of NCA established control limits. The alternate surrogate has been used to validate the sample result. The RPD value for naphthalene, fluorene, chrysene, and indeno (1,2,3-cd) pyrene for matrix spike duplicate sample (2080108-MSD1) was outside the advisory limit established by NCA. The surrogate recovery for matrix spike sample (2080108-MS1) was outside of NCA established control limits. The alternate surrogate has been used to validate the sample result. The spike recovery for naphthalene and indeno (1,2,3-cd) pyrene for matrix spike (2080108-MS1) was outside of NCA established control limits. Review of

associated batch QC indicates the recovery for this analyte does not represent an out-of-control condition for the batch.

**September 20, 2002.** All required holding times were met. No method blank contamination was detected. MS and LCS recoveries were within control limits. The RPD value for chrysene and indeno (1,2,3-cd) pyrene for matrix spike duplicate sample (2090076-MSD1) was outside the advisory limit established by NCA due to matrix variability.

**September 23, 2002.** All required holding times were met. No method blank contamination was detected. The LCS recovery was within control limits. The surrogate recovery for sample T1-3ESE4 (0-3) was not available for this sample due to sample dilution required for high analyte concentration. The naphthalene spike recovery for matrix spike sample (2090084-MS1) and matrix spike duplicate sample (2090084-MSD1) could not be accurately calculated due to high concentration of analyte in the sample. The spike recovery for fluorene for matrix spike (2090084-MSD1) was outside of NCA established control limits. Review of associated batch QC indicates the recovery for this analyte does not represent an out-of-control condition for the batch.

Upon review, all data are suitable for their intended purposes. Please see the laboratory report for Quality Assurance/Quality Control (QA/QC) results and discussions.



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541.383.9310 fax 541.382.7588

Hart Crowser  
Five Centerpointe Drive  
Lake Oswego, OR 97035

Project: POP - T-1  
Project Number: ~~15000-04~~ 15230-04  
Project Manager: Levi Fernandez

Reported:  
08/05/02 16:27

#### ANALYTICAL REPORT FOR SAMPLES

| Sample ID | Laboratory ID | Matrix | Date Sampled   | Date Received  |
|-----------|---------------|--------|----------------|----------------|
| B-52A     | P2H0014-01    | Soil   | 08/01/02 08:50 | 08/01/02 10:35 |

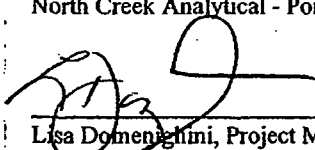
HART CROWSER, INC.

AUG 13 2002

Portland Office

North Creek Analytical - Portland

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Lisa Domenighini, Project Manager

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1 of 5

POPT1S603005



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Hart Crowser  
Five Centerpointe Drive  
Lake Oswego, OR 97035

Project: POP - T-1  
Project Number: 15093-04  
Project Manager: Levi Fernandez

Reported:  
08/05/02 16:27

**TCLP Metals by EPA 1311/6000/7000 Series Methods**  
**North Creek Analytical - Bothell**

| Analyte                        | Result | Reporting<br>Limit | Units | Dilution | Method    | Prepared                             | Analyzed | Batch   | Notes |
|--------------------------------|--------|--------------------|-------|----------|-----------|--------------------------------------|----------|---------|-------|
| <b>B-52A (P2H0014-01) Soil</b> |        |                    |       |          |           | Sampled: 08/01/02 Received: 08/01/02 |          |         |       |
| Arsenic                        | ND     | 0.0500             | mg/l  | 50       | EPA 6020  | 08/05/02                             | 08/05/02 | 2H05012 |       |
| Barium                         | 0.422  | 0.0500             | "     | "        | "         | "                                    | "        | "       |       |
| Cadmium                        | ND     | 0.0500             | "     | "        | "         | "                                    | "        | "       |       |
| Chromium                       | ND     | 0.0500             | "     | "        | "         | "                                    | "        | "       |       |
| Lead                           | ND     | 0.0500             | "     | "        | "         | "                                    | "        | "       |       |
| Mercury                        | ND     | 0.00100            | "     | 1        | EPA 7470A | 08/05/02                             | 08/05/02 | 2H05010 |       |
| Selenium                       | ND     | 0.0500             | "     | 50       | EPA 6020  | 08/05/02                             | 08/05/02 | 2H05012 |       |
| Silver                         | ND     | 0.0500             | "     | "        | "         | "                                    | "        | "       |       |

North Creek Analytical - Portland

Lisa Domenighini, Project Manager

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POPT1S603006



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541.383.9310 fax 541.382.7588

|  |   |                             |
|--|---|-----------------------------|
| Hart Crowser<br>Five Centerpointe Drive<br>Lake Oswego, OR 97035 | Project: POP - T-1<br>Project Number: 15093-04<br>Project Manager: Levi Fernandez | Reported:<br>08/05/02 16:27 |
|--|---|-----------------------------|

**TCLP Metals by EPA 1311/6000/7000 Series Methods - Quality Control**

**North Creek Analytical - Bothell**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

**Batch 2H05010 - EPA 7470A TCLP**

|  |         |         |      |                               |         |                               |        |      |    |      |
|--|---------|---------|------|-------------------------------|---------|-------------------------------|--------|------|----|------|
| <b>Blank (2H05010-BLK1)</b>            |         |         |      | Prepared & Analyzed: 08/05/02 |         |                               |        |      |    |      |
| Mercury                                | ND      | 0.00100 | mg/l |                               |         |                               |        |      |    |      |
| <b>LCS (2H05010-BS1)</b>               |         |         |      | Prepared & Analyzed: 08/05/02 |         |                               |        |      |    |      |
| Mercury                                | 0.00509 | 0.00100 | mg/l | 0.00500                       |         | 102                           | 80-120 |      |    |      |
| <b>LCS Dup (2H05010-BSD1)</b>          |         |         |      | Prepared & Analyzed: 08/05/02 |         |                               |        |      |    |      |
| Mercury                                | 0.00500 | 0.00100 | mg/l | 0.00500                       |         | 100                           | 80-120 | 1.78 | 20 |      |
| <b>Matrix Spike (2H05010-MS1)</b>      |         |         |      | Source: B2H0040-01            |         | Prepared & Analyzed: 08/05/02 |        |      |    |      |
| Mercury                                | 0.00852 | 0.00100 | mg/l | 0.00500                       | 0.00234 | 124                           | 75-125 |      |    |      |
| <b>Matrix Spike Dup (2H05010-MSD1)</b> |         |         |      | Source: B2H0040-01            |         | Prepared & Analyzed: 08/05/02 |        |      |    |      |
| Mercury                                | 0.00616 | 0.00100 | mg/l | 0.00500                       | 0.00234 | 76.4                          | 75-125 | 32.2 | 20 | Q-07 |

**Batch 2H05012 - EPA 3020A**

|                             |      |        |      |                               |  |      |        |  |  |  |
|-----------------------------|------|--------|------|-------------------------------|--|------|--------|--|--|--|
| <b>Blank (2H05012-BLK1)</b> |      |        |      | Prepared & Analyzed: 08/05/02 |  |      |        |  |  |  |
| Arsenic                     | ND   | 0.0500 | mg/l |                               |  |      |        |  |  |  |
| Barium                      | ND   | 0.0500 | "    |                               |  |      |        |  |  |  |
| Cadmium                     | ND   | 0.0500 | "    |                               |  |      |        |  |  |  |
| Chromium                    | ND   | 0.0500 | "    |                               |  |      |        |  |  |  |
| Lead                        | ND   | 0.0500 | "    |                               |  |      |        |  |  |  |
| Selenium                    | ND   | 0.0500 | "    |                               |  |      |        |  |  |  |
| Silver                      | ND   | 0.0500 | "    |                               |  |      |        |  |  |  |
| <b>LCS (2H05012-BS1)</b>    |      |        |      | Prepared & Analyzed: 08/05/02 |  |      |        |  |  |  |
| Arsenic                     | 3.87 | 0.0500 | mg/l | 4.00                          |  | 96.8 | 80-120 |  |  |  |
| Barium                      | 4.31 | 0.0500 | "    | 4.00                          |  | 108  | 80-120 |  |  |  |
| Cadmium                     | 4.18 | 0.0500 | "    | 4.00                          |  | 104  | 80-120 |  |  |  |
| Chromium                    | 4.46 | 0.0500 | "    | 4.00                          |  | 112  | 80-120 |  |  |  |
| Lead                        | 4.15 | 0.0500 | "    | 4.00                          |  | 104  | 80-120 |  |  |  |
| Selenium                    | 4.11 | 0.0500 | "    | 4.00                          |  | 103  | 80-120 |  |  |  |
| Silver                      | 4.11 | 0.0500 | "    | 4.00                          |  | 103  | 80-120 |  |  |  |

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POPT1S603007



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541.383.9310 fax 541.382.7588

Hart Crowser  
Five Centerpointe Drive  
Lake Oswego, OR 97035

Project: POP - T-1  
Project Number: 15093-04  
Project Manager: Levi Fernandez

Reported:  
08/05/02 16:27

TCLP Metals by EPA 1311/6000/7000 Series Methods - Quality Control

### North Creek Analytical - Bothell

| Analyte | Result | Reporting<br>Limit | Units | Spike<br>Level | Source<br>Result | %REC | %REC<br>Limits | RPD | RPD<br>Limit | Notes |
|---------|--------|--------------------|-------|----------------|------------------|------|----------------|-----|--------------|-------|
|---------|--------|--------------------|-------|----------------|------------------|------|----------------|-----|--------------|-------|

#### Batch 2H05012 - EPA 3020A

##### LCS Dup (2H05012-BSD1)

Prepared & Analyzed: 08/05/02

|          |      |        |      |      |  |     |        |       |    |  |
|----------|------|--------|------|------|--|-----|--------|-------|----|--|
| Arsenic  | 4.21 | 0.0500 | mg/l | 4.00 |  | 105 | 80-120 | 8.42  | 20 |  |
| Barium   | 4.25 | 0.0500 | "    | 4.00 |  | 106 | 80-120 | 1.40  | 20 |  |
| Cadmium  | 4.16 | 0.0500 | "    | 4.00 |  | 104 | 80-120 | 0.480 | 30 |  |
| Chromium | 4.39 | 0.0500 | "    | 4.00 |  | 110 | 80-120 | 1.58  | 20 |  |
| Lead     | 4.15 | 0.0500 | "    | 4.00 |  | 104 | 80-120 | 0.00  | 20 |  |
| Selenium | 4.26 | 0.0500 | "    | 4.00 |  | 106 | 80-120 | 3.58  | 20 |  |
| Silver   | 4.14 | 0.0500 | "    | 4.00 |  | 104 | 80-120 | 0.727 | 30 |  |

##### Matrix Spike (2H05012-MS1)

Source: P2H0014-01

Prepared & Analyzed: 08/05/02

|          |      |        |      |      |       |     |        |  |  |  |
|----------|------|--------|------|------|-------|-----|--------|--|--|--|
| Arsenic  | 4.32 | 0.0500 | mg/l | 4.00 | ND    | 108 | 80-120 |  |  |  |
| Barium   | 4.78 | 0.0500 | "    | 4.00 | 0.422 | 109 | 80-120 |  |  |  |
| Cadmium  | 4.22 | 0.0500 | "    | 4.00 | ND    | 106 | 80-120 |  |  |  |
| Chromium | 4.43 | 0.0500 | "    | 4.00 | ND    | 111 | 75-125 |  |  |  |
| Lead     | 4.24 | 0.0500 | "    | 4.00 | ND    | 106 | 80-120 |  |  |  |
| Selenium | 4.38 | 0.0500 | "    | 4.00 | ND    | 110 | 80-120 |  |  |  |
| Silver   | 4.14 | 0.0500 | "    | 4.00 | ND    | 104 | 75-125 |  |  |  |

##### Matrix Spike Dup (2H05012-MSD1)

Source: P2H0014-01

Prepared & Analyzed: 08/05/02

|          |      |        |      |      |       |      |        |      |    |  |
|----------|------|--------|------|------|-------|------|--------|------|----|--|
| Arsenic  | 3.56 | 0.0500 | mg/l | 4.00 | ND    | 89.0 | 80-120 | 19.3 | 20 |  |
| Barium   | 4.67 | 0.0500 | "    | 4.00 | 0.422 | 106  | 80-120 | 2.33 | 20 |  |
| Cadmium  | 4.14 | 0.0500 | "    | 4.00 | ND    | 104  | 80-120 | 1.91 | 40 |  |
| Chromium | 4.36 | 0.0500 | "    | 4.00 | ND    | 109  | 75-125 | 1.59 | 20 |  |
| Lead     | 4.13 | 0.0500 | "    | 4.00 | ND    | 103  | 80-120 | 2.63 | 40 |  |
| Selenium | 3.98 | 0.0500 | "    | 4.00 | ND    | 99.5 | 80-120 | 9.57 | 20 |  |
| Silver   | 3.99 | 0.0500 | "    | 4.00 | ND    | 99.8 | 75-125 | 3.69 | 30 |  |

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Lisa Domenighini, Project Manager

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4 of 5

POPT1S603008





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Hart Crowser  
Five Centerpointe Drive  
Lake Oswego, OR 97035

Project: POP - T-1  
Project Number: 15093-04  
Project Manager: Levi Fernandez

Reported:  
08/05/02 16:27

#### Notes and Definitions

Q-07 The RPD value for this QC sample is above the established control limit. Review of associated QC indicates the high RPD does not represent an out-of-control condition for the batch.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis. MRLs are adjusted if %Solids are less than 50%.

wet Sample results reported on a wet weight basis (as received)

RPD Relative Percent Difference

North Creek Analytical - Portland

Lisa Domenighini, Project Manager

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Environmental Laboratory Network

5 of 5

POPT1S603009



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(509) 924-9200 FAX 924-9290  
(503) 906-9200 FAX 906-9210  
(541) 383-9310 FAX 382-7588

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## CHAIN OF CUSTODY REPORT

Work Order #: **7260014**

|  |                    |                                   |  |   |  |                                       |  |                                   |            |                                  |           |
|--|--------------------|-----------------------------------|--|---|--|---------------------------------------|--|-----------------------------------|------------|----------------------------------|-----------|
| CLIENT: <b>Hurt Crowder</b>  |                    | INVOICE TO: <b>Hurt Crowder</b>   |  | <b>TURNAROUND REQUEST in Business Days*</b><br>Organic & Inorganic Analyses<br>10 7 5 4 3 2 1 <1<br>STD. Petroleum Hydrocarbon Analyses<br>5 4 3 2 1 <1<br>STD. <b>OTHER</b> Please Specify<br><small>*Turnaround Requests less than standard may incur Rush Charges.</small> |  |                                       |  |                                   |            |                                  |           |
| REPORT TO: <b>Levi Fernandez</b>   |                    | P.O. NUMBER: <b>15093-04</b>      |  |   |  |                                       |  |                                   |            |                                  |           |
| ADDRESS: <b>Five Centerville Drive Suite 240<br/>Lake Oswego, OR 97035</b> |                    | REQUESTED ANALYSES                |  |   |  |                                       |  |                                   |            |                                  |           |
| PHONE: <b>503-620-7284</b> FAX: <b>503-620-6918</b>                        |                    | PROJECT NAME: <b>Terminal 2</b>   |  |   |  |                                       |  |                                   |            |                                  |           |
| PROJECT NUMBER: <b>15093-04</b>  |                    | PROJECT NAME: <b>Terminal 2</b>   |  | PROJECT NUMBER: <b>15093-04</b>   |  | PROJECT NAME: <b>Terminal 2</b>       |  | PROJECT NUMBER: <b>15093-04</b>   |            |                                  |           |
| SAMPLED BY: <b>Levi Fernandez</b>  |                    | SAMPLED BY: <b>Levi Fernandez</b> |  | SAMPLED BY: <b>Levi Fernandez</b>   |  | SAMPLED BY: <b>Levi Fernandez</b>     |  | SAMPLED BY: <b>Levi Fernandez</b> |            |                                  |           |
| CLIENT SAMPLE IDENTIFICATION   | SAMPLING DATE/TIME | TCLP<br>PCE<br>Methyl             |  |   |  |                                       |  | MATRIX (W, S, O)                  | # OF CONT. | COMMENTS                         | NCA WO ID |
| 1. <b>B-52A</b>  | <b>8/1/02 8:50</b> | <b>X</b>                          |  |   |  |                                       |  | <b>S</b>                          | <b>2</b>   | <b>Quik as possible "Monday"</b> |           |
| 2.   |                    |                                   |  |   |  |                                       |  |                                   |            |                                  |           |
| 3.   |                    |                                   |  |   |  |                                       |  |                                   |            |                                  |           |
| 4.   |                    |                                   |  |   |  |                                       |  |                                   |            |                                  |           |
| 5.   |                    |                                   |  |   |  |                                       |  |                                   |            |                                  |           |
| 6.   |                    |                                   |  |   |  |                                       |  |                                   |            |                                  |           |
| 7.   |                    |                                   |  |   |  |                                       |  |                                   |            |                                  |           |
| 8.   |                    |                                   |  |   |  |                                       |  |                                   |            |                                  |           |
| 9.   |                    |                                   |  |   |  |                                       |  |                                   |            |                                  |           |
| 10.  |                    |                                   |  |   |  |                                       |  |                                   |            |                                  |           |
| 11.  |                    |                                   |  |   |  |                                       |  |                                   |            |                                  |           |
| 12.  |                    |                                   |  |   |  |                                       |  |                                   |            |                                  |           |
| 13.  |                    |                                   |  |   |  |                                       |  |                                   |            |                                  |           |
| 14.  |                    |                                   |  |   |  |                                       |  |                                   |            |                                  |           |
| 15.  |                    |                                   |  |   |  |                                       |  |                                   |            |                                  |           |
| RELINQUISHED BY: <b>Shawna Pace-Powers</b>                                 |                    | FIRM: <b>Hurt Crowder</b>         |  | DATE: <b>8/1/02</b>   |  | RECEIVED BY: <b>Callie Fahnschitz</b> |  | FIRM: <b>NCA</b>                  |            | DATE: <b>8/1/02</b>              |           |
| PRINT NAME: <b>Shawna Pace-Powers</b>                                      |                    | FIRM: <b>Hurt Crowder</b>         |  | TIME: <b>10:39 AM</b>   |  | PRINT NAME: <b>Callie Fahnschitz</b>  |  | FIRM: <b>NCA</b>                  |            | TIME: <b>10:35</b>               |           |
| RELINQUISHED BY:   |                    | FIRM:                             |  | DATE:   |  | RECEIVED BY:                          |  | FIRM:                             |            | DATE:                            |           |
| PRINT NAME:  |                    | FIRM:                             |  | TIME:   |  | PRINT NAME:                           |  | FIRM:                             |            | TIME:                            |           |
| ADDITIONAL REMARKS:  |                    |                                   |  |   |  |                                       |  |                                   |            | TEMP: <b>901</b>                 |           |
| COC REV 3/99   |                    |                                   |  |   |  |                                       |  |                                   |            | PAGE OF                          |           |

POPT1S603010



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Hart Crowser  
Five Centerpointe Drive  
Lake Oswego, OR 97035

Project: POP - T-1  
Project Number: 15230 -04  
Project Manager: Levi Fernandez

Reported:  
08/22/02 14:28

### ANALYTICAL REPORT FOR SAMPLES


| Sample ID    | Laboratory ID | Matrix | Date Sampled   | Date Received  |
|--------------|---------------|--------|----------------|----------------|
| T1-2N(3-10)  | P2H0440-01    | Soil   | 08/16/02 14:15 | 08/16/02 16:15 |
| T1-2B        | P2H0440-02    | Soil   | 08/16/02 14:25 | 08/16/02 16:15 |
| T1-2NW(0-3)  | P2H0440-03    | Soil   | 08/16/02 14:40 | 08/16/02 16:15 |
| T1-2NW(3-10) | P2H0440-04    | Soil   | 08/16/02 14:45 | 08/16/02 16:15 |
| T1-2W(0-3)   | P2H0440-05    | Soil   | 08/16/02 14:50 | 08/16/02 16:15 |
| T1-2W(3-10)  | P2H0440-06    | Soil   | 08/16/02 14:55 | 08/16/02 16:15 |
| T1-2FW(0-3)  | P2H0440-07    | Soil   | 08/16/02 15:05 | 08/16/02 16:15 |
| T1-2FW(3-10) | P2H0440-08    | Soil   | 08/16/02 15:10 | 08/16/02 16:15 |
| T1-2S(0-3)   | P2H0440-09    | Soil   | 08/16/02 15:20 | 08/16/02 16:15 |
| T1-2S(3-10)  | P2H0440-10    | Soil   | 08/16/02 15:25 | 08/16/02 16:15 |
| SP-A3        | P2H0440-11    | Soil   | 08/16/02 15:40 | 08/16/02 16:15 |

HART CROWSER, INC.

AUG 27 2002

Portland Office

North Creek Analytical - Portland

  
Crystal Burkholder For Lisa Domenighini, Project Manager

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POPT1S603011



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Hart Crowser  
Five Centerpointe Drive  
Lake Oswego, OR 97035

Project: POP - T-1  
Project Number: 15230  
Project Manager: Levi Fernandez

Reported:  
08/22/02 14:28

**Diesel and Heavy Range Hydrocarbons per NWTPH-Dx Method**  
**North Creek Analytical - Portland**

| Analyte   | Result | Reporting Limit | Units     | Dilution | Method   | Prepared | Analyzed | Batch   | Notes |
|---|--------|-----------------|-----------|----------|----------|----------|----------|---------|-------|
| <b>T1-2N(3-10) (P2H0440-01) Soil</b> <span style="float:right">Sampled: 08/16/02 Received: 08/16/02</span>  |        |                 |           |          |          |          |          |         |       |
| Diesel Range Organics   | ND     | 25.0            | mg/kg dry | 1        | NWTPH-Dx | 08/19/02 | 08/19/02 | 2080628 |       |
| Heavy Oil Range Hydrocarbons  | ND     | 50.0            | "         | "        | "        | "        | "        | "       |       |
| Surr: 1-Chlorooctadecane  | 94.9 % | 50-150          |           |          |          |          |          |         |       |
| <b>T1-2B (P2H0440-02) Soil</b> <span style="float:right">Sampled: 08/16/02 Received: 08/16/02</span>        |        |                 |           |          |          |          |          |         |       |
| Diesel Range Organics   | ND     | 25.0            | mg/kg dry | 1        | NWTPH-Dx | 08/19/02 | 08/19/02 | 2080628 |       |
| Heavy Oil Range Hydrocarbons  | ND     | 50.0            | "         | "        | "        | "        | "        | "       |       |
| Surr: 1-Chlorooctadecane  | 90.4 % | 50-150          |           |          |          |          |          |         |       |
| <b>T1-2NW(0-3) (P2H0440-03) Soil</b> <span style="float:right">Sampled: 08/16/02 Received: 08/16/02</span>  |        |                 |           |          |          |          |          |         |       |
| Diesel Range Organics   | ND     | 25.0            | mg/kg dry | 1        | NWTPH-Dx | 08/19/02 | 08/19/02 | 2080628 |       |
| Heavy Oil Range Hydrocarbons  | ND     | 50.0            | "         | "        | "        | "        | "        | "       |       |
| Surr: 1-Chlorooctadecane  | 85.1 % | 50-150          |           |          |          |          |          |         |       |
| <b>T1-2NW(3-10) (P2H0440-04) Soil</b> <span style="float:right">Sampled: 08/16/02 Received: 08/16/02</span> |        |                 |           |          |          |          |          |         |       |
| Diesel Range Organics   | 66.4   | 25.0            | mg/kg dry | 1        | NWTPH-Dx | 08/19/02 | 08/19/02 | 2080628 | A-02  |
| Heavy Oil Range Hydrocarbons  | 189    | 50.0            | "         | "        | "        | "        | "        | "       | A-02  |
| Surr: 1-Chlorooctadecane  | 76.6 % | 50-150          |           |          |          |          |          |         |       |
| <b>T1-2W(0-3) (P2H0440-05) Soil</b> <span style="float:right">Sampled: 08/16/02 Received: 08/16/02</span>   |        |                 |           |          |          |          |          |         |       |
| Diesel Range Organics   | ND     | 25.0            | mg/kg dry | 1        | NWTPH-Dx | 08/19/02 | 08/19/02 | 2080628 |       |
| Heavy Oil Range Hydrocarbons  | 53.0   | 50.0            | "         | "        | "        | "        | "        | "       | A-02  |
| Surr: 1-Chlorooctadecane  | 82.3 % | 50-150          |           |          |          |          |          |         |       |
| <b>T1-2W(3-10) (P2H0440-06) Soil</b> <span style="float:right">Sampled: 08/16/02 Received: 08/16/02</span>  |        |                 |           |          |          |          |          |         |       |
| Diesel Range Organics   | ND     | 25.0            | mg/kg dry | 1        | NWTPH-Dx | 08/19/02 | 08/19/02 | 2080628 |       |
| Heavy Oil Range Hydrocarbons  | ND     | 50.0            | "         | "        | "        | "        | "        | "       |       |
| Surr: 1-Chlorooctadecane  | 91.3 % | 50-150          |           |          |          |          |          |         |       |

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Hart Crowser  
Five Centerpointe Drive  
Lake Oswego, OR 97035

Project: POP - T-1  
Project Number: 15230  
Project Manager: Levi Fernandez

Reported:  
08/22/02 14:28

### Diesel and Heavy Range Hydrocarbons per NWTPH-Dx Method

#### North Creek Analytical - Portland

| Analyte                               | Result | Reporting Limit | Units     | Dilution | Method   | Prepared                             | Analyzed | Batch   | Notes |
|---------------------------------------|--------|-----------------|-----------|----------|----------|--------------------------------------|----------|---------|-------|
| <b>T1-2FW(0-3) (P2H0440-07) Soil</b>  |        |                 |           |          |          | Sampled: 08/16/02 Received: 08/16/02 |          |         |       |
| Diesel Range Organics                 | ND     | 25.0            | mg/kg dry | 1        | NWTPH-Dx | 08/19/02                             | 08/19/02 | 2080628 |       |
| Heavy Oil Range Hydrocarbons          | ND     | 50.0            | "         | "        | "        | "                                    | "        | "       |       |
| Surr: 1-Chlorooctadecane              | 94.0 % | 50-150          |           |          |          |                                      |          |         |       |
| <b>T1-2FW(3-10) (P2H0440-08) Soil</b> |        |                 |           |          |          | Sampled: 08/16/02 Received: 08/16/02 |          |         |       |
| Diesel Range Organics                 | ND     | 25.0            | mg/kg dry | 1        | NWTPH-Dx | 08/19/02                             | 08/19/02 | 2080628 |       |
| Heavy Oil Range Hydrocarbons          | ND     | 50.0            | "         | "        | "        | "                                    | "        | "       |       |
| Surr: 1-Chlorooctadecane              | 93.6 % | 50-150          |           |          |          |                                      |          |         |       |
| <b>T1-2S(0-3) (P2H0440-09) Soil</b>   |        |                 |           |          |          | Sampled: 08/16/02 Received: 08/16/02 |          |         |       |
| Diesel Range Organics                 | 44.0   | 25.0            | mg/kg dry | 1        | NWTPH-Dx | 08/19/02                             | 08/19/02 | 2080628 | D-15  |
| Heavy Oil Range Hydrocarbons          | 204    | 50.0            | "         | "        | "        | "                                    | "        | "       |       |
| Surr: 1-Chlorooctadecane              | 81.7 % | 50-150          |           |          |          |                                      |          |         |       |
| <b>T1-2S(3-10) (P2H0440-10) Soil</b>  |        |                 |           |          |          | Sampled: 08/16/02 Received: 08/16/02 |          |         |       |
| Diesel Range Organics                 | ND     | 25.0            | mg/kg dry | 1        | NWTPH-Dx | 08/19/02                             | 08/20/02 | 2080628 |       |
| Heavy Oil Range Hydrocarbons          | 70.4   | 50.0            | "         | "        | "        | "                                    | "        | "       |       |
| Surr: 1-Chlorooctadecane              | 91.6 % | 50-150          |           |          |          |                                      |          |         |       |
| <b>SP-A3 (P2H0440-11) Soil</b>        |        |                 |           |          |          | Sampled: 08/16/02 Received: 08/16/02 |          |         |       |
| Diesel Range Organics                 | ND     | 250             | mg/kg dry | 10       | NWTPH-Dx | 08/19/02                             | 08/20/02 | 2080628 | R-05  |
| Heavy Oil Range Hydrocarbons          | 664    | 500             | "         | "        | "        | "                                    | "        | "       |       |
| Surr: 1-Chlorooctadecane              | 80.6 % | 50-150          |           |          |          |                                      |          |         |       |

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POPT1S603013



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Hart Crowser  
Five Centerpointe Drive  
Lake Oswego, OR 97035

Project: POP - T-1  
Project Number: 15230  
Project Manager: Levi Fernandez

Reported:  
08/22/02 14:28

**Polynuclear Aromatic Compounds per EPA 8270M-SIM**  
**North Creek Analytical - Portland**

| Analyte                              | Result | Reporting Limit | Units     | Dilution | Method    | Prepared                             | Analyzed | Batch   | Notes |
|--------------------------------------|--------|-----------------|-----------|----------|-----------|--------------------------------------|----------|---------|-------|
| <b>T1-2N(3-10) (P2H0440-01) Soil</b> |        |                 |           |          |           | Sampled: 08/16/02 Received: 08/16/02 |          |         |       |
| Acenaphthene                         | ND     | 13.4            | ug/kg dry | 1        | EPA 8270m | 08/19/02                             | 08/20/02 | 2080631 |       |
| Acenaphthylene                       | ND     | 13.4            | "         | "        | "         | "                                    | "        | "       |       |
| Anthracene                           | 20.8   | 13.4            | "         | "        | "         | "                                    | "        | "       |       |
| Benzo (a) anthracene                 | 59.9   | 13.4            | "         | "        | "         | "                                    | "        | "       |       |
| Benzo (a) pyrene                     | 79.6   | 13.4            | "         | "        | "         | "                                    | "        | "       |       |
| Benzo (b) fluoranthene               | 48.3   | 13.4            | "         | "        | "         | "                                    | "        | "       |       |
| Benzo (ghi) perylene                 | 63.7   | 13.4            | "         | "        | "         | "                                    | "        | "       |       |
| Benzo (k) fluoranthene               | 46.8   | 13.4            | "         | "        | "         | "                                    | "        | "       |       |
| Chrysene                             | 70.7   | 13.4            | "         | "        | "         | "                                    | "        | "       |       |
| Dibenzo (a,h) anthracene             | ND     | 13.4            | "         | "        | "         | "                                    | "        | "       |       |
| Fluoranthene                         | 88.7   | 13.4            | "         | "        | "         | "                                    | "        | "       |       |
| Fluorene                             | ND     | 13.4            | "         | "        | "         | "                                    | "        | "       |       |
| Indeno (1,2,3-cd) pyrene             | 44.2   | 13.4            | "         | "        | "         | "                                    | "        | "       |       |
| Naphthalene                          | ND     | 13.4            | "         | "        | "         | "                                    | "        | "       |       |
| Phenanthrene                         | 86.5   | 13.4            | "         | "        | "         | "                                    | "        | "       |       |
| Pyrene                               | 169    | 13.4            | "         | "        | "         | "                                    | "        | "       |       |
| Surr: Fluorene-d10                   | 50.8 % | 40-150          |           |          |           |                                      |          |         |       |
| Surr: Pyrene-d10                     | 72.6 % | 40-150          |           |          |           |                                      |          |         |       |
| Surr: Benzo (a) pyrene-d12           | 65.1 % | 40-150          |           |          |           |                                      |          |         |       |

|                                     |        |        |           |   |           |                                      |          |         |  |
|-------------------------------------|--------|--------|-----------|---|-----------|--------------------------------------|----------|---------|--|
| <b>T1-2W(0-3) (P2H0440-05) Soil</b> |        |        |           |   |           | Sampled: 08/16/02 Received: 08/16/02 |          |         |  |
| Acenaphthene                        | ND     | 13.4   | ug/kg dry | 1 | EPA 8270m | 08/19/02                             | 08/20/02 | 2080631 |  |
| Acenaphthylene                      | ND     | 13.4   | "         | " | "         | "                                    | "        | "       |  |
| Anthracene                          | ND     | 13.4   | "         | " | "         | "                                    | "        | "       |  |
| Benzo (a) anthracene                | 16.2   | 13.4   | "         | " | "         | "                                    | "        | "       |  |
| Benzo (a) pyrene                    | 19.8   | 13.4   | "         | " | "         | "                                    | "        | "       |  |
| Benzo (b) fluoranthene              | ND     | 13.4   | "         | " | "         | "                                    | "        | "       |  |
| Benzo (ghi) perylene                | 14.7   | 13.4   | "         | " | "         | "                                    | "        | "       |  |
| Benzo (k) fluoranthene              | 14.3   | 13.4   | "         | " | "         | "                                    | "        | "       |  |
| Chrysene                            | 20.0   | 13.4   | "         | " | "         | "                                    | "        | "       |  |
| Dibenzo (a,h) anthracene            | ND     | 13.4   | "         | " | "         | "                                    | "        | "       |  |
| Fluoranthene                        | 22.7   | 13.4   | "         | " | "         | "                                    | "        | "       |  |
| Fluorene                            | ND     | 13.4   | "         | " | "         | "                                    | "        | "       |  |
| Indeno (1,2,3-cd) pyrene            | ND     | 13.4   | "         | " | "         | "                                    | "        | "       |  |
| Naphthalene                         | ND     | 13.4   | "         | " | "         | "                                    | "        | "       |  |
| Phenanthrene                        | ND     | 13.4   | "         | " | "         | "                                    | "        | "       |  |
| Pyrene                              | 35.6   | 13.4   | "         | " | "         | "                                    | "        | "       |  |
| Surr: Fluorene-d10                  | 52.8 % | 40-150 |           |   |           |                                      |          |         |  |

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POPT1S603014



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Hart Crowser  
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Lake Oswego, OR 97035

Project: POP - T-1  
Project Number: 15230  
Project Manager: Levi Fernandez

Reported:  
08/22/02 14:28

**Polynuclear Aromatic Compounds per EPA 8270M-SIM**  
**North Creek Analytical - Portland**

| Analyte | Result | Reporting Limit | Units | Dilution | Method | Prepared | Analyzed | Batch | Notes |
|---------|--------|-----------------|-------|----------|--------|----------|----------|-------|-------|
|---------|--------|-----------------|-------|----------|--------|----------|----------|-------|-------|

**T1-2W(0-3) (P2H0440-05) Soil**

Sampled: 08/16/02 Received: 08/16/02

Surr: Pyrene-d10 73.4 % 40-150  
Surr: Benzo (a) pyrene-d12 62.8 % 40-150

**T1-2W(3-10) (P2H0440-06) Soil**

Sampled: 08/16/02 Received: 08/16/02

|                            |        |        |           |   |           |          |          |         |
|----------------------------|--------|--------|-----------|---|-----------|----------|----------|---------|
| Acenaphthene               | ND     | 13.4   | ug/kg dry | 1 | EPA 8270m | 08/19/02 | 08/20/02 | 2080631 |
| Acenaphthylene             | ND     | 13.4   | "         | " | "         | "        | "        | "       |
| Anthracene                 | ND     | 13.4   | "         | " | "         | "        | "        | "       |
| Benzo (a) anthracene       | ND     | 13.4   | "         | " | "         | "        | "        | "       |
| Benzo (a) pyrene           | ND     | 13.4   | "         | " | "         | "        | "        | "       |
| Benzo (b) fluoranthene     | ND     | 13.4   | "         | " | "         | "        | "        | "       |
| Benzo (ghi) perylene       | ND     | 13.4   | "         | " | "         | "        | "        | "       |
| Benzo (k) fluoranthene     | ND     | 13.4   | "         | " | "         | "        | "        | "       |
| Chrysene                   | ND     | 13.4   | "         | " | "         | "        | "        | "       |
| Dibenzo (a,h) anthracene   | ND     | 13.4   | "         | " | "         | "        | "        | "       |
| Fluoranthene               | ND     | 13.4   | "         | " | "         | "        | "        | "       |
| Fluorene                   | ND     | 13.4   | "         | " | "         | "        | "        | "       |
| Indeno (1,2,3-cd) pyrene   | ND     | 13.4   | "         | " | "         | "        | "        | "       |
| Naphthalene                | ND     | 13.4   | "         | " | "         | "        | "        | "       |
| Phenanthrene               | ND     | 13.4   | "         | " | "         | "        | "        | "       |
| Pyrene                     | ND     | 13.4   | "         | " | "         | "        | "        | "       |
| Surr: Fluorene-d10         | 52.6 % | 40-150 |           |   |           |          |          |         |
| Surr: Pyrene-d10           | 75.7 % | 40-150 |           |   |           |          |          |         |
| Surr: Benzo (a) pyrene-d12 | 65.2 % | 40-150 |           |   |           |          |          |         |

**T1-2FW(0-3) (P2H0440-07) Soil**

Sampled: 08/16/02 Received: 08/16/02

|                          |    |      |           |   |           |          |          |         |
|--------------------------|----|------|-----------|---|-----------|----------|----------|---------|
| Acenaphthene             | ND | 13.4 | ug/kg dry | 1 | EPA 8270m | 08/19/02 | 08/20/02 | 2080631 |
| Acenaphthylene           | ND | 13.4 | "         | " | "         | "        | "        | "       |
| Anthracene               | ND | 13.4 | "         | " | "         | "        | "        | "       |
| Benzo (a) anthracene     | ND | 13.4 | "         | " | "         | "        | "        | "       |
| Benzo (a) pyrene         | ND | 13.4 | "         | " | "         | "        | "        | "       |
| Benzo (b) fluoranthene   | ND | 13.4 | "         | " | "         | "        | "        | "       |
| Benzo (ghi) perylene     | ND | 13.4 | "         | " | "         | "        | "        | "       |
| Benzo (k) fluoranthene   | ND | 13.4 | "         | " | "         | "        | "        | "       |
| Chrysene                 | ND | 13.4 | "         | " | "         | "        | "        | "       |
| Dibenzo (a,h) anthracene | ND | 13.4 | "         | " | "         | "        | "        | "       |
| Fluoranthene             | ND | 13.4 | "         | " | "         | "        | "        | "       |
| Fluorene                 | ND | 13.4 | "         | " | "         | "        | "        | "       |
| Indeno (1,2,3-cd) pyrene | ND | 13.4 | "         | " | "         | "        | "        | "       |

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Project: POP - T-1  
Project Number: 15230  
Project Manager: Levi Fernandez

Reported:  
08/22/02 14:28

## Polynuclear Aromatic Compounds per EPA 8270M-SIM

### North Creek Analytical - Portland

| Analyte                              | Result | Reporting Limit | Units     | Dilution | Method    | Prepared                             | Analyzed | Batch   | Notes |
|--------------------------------------|--------|-----------------|-----------|----------|-----------|--------------------------------------|----------|---------|-------|
| <b>T1-2FW(0-3) (P2H0440-07) Soil</b> |        |                 |           |          |           | Sampled: 08/16/02 Received: 08/16/02 |          |         |       |
| Naphthalene                          | ND     | 13.4            | ug/kg dry | 1        | EPA 8270m | 08/19/02                             | 08/20/02 | 2080631 |       |
| Phenanthrene                         | ND     | 13.4            | "         | "        | "         | "                                    | "        | "       |       |
| Pyrene                               | 17.6   | 13.4            | "         | "        | "         | "                                    | "        | "       |       |
| Surr: Fluorene-d10                   | 54.3 % | 40-150          |           |          |           |                                      |          |         |       |
| Surr: Pyrene-d10                     | 76.6 % | 40-150          |           |          |           |                                      |          |         |       |
| Surr: Benzo (a) pyrene-d12           | 65.1 % | 40-150          |           |          |           |                                      |          |         |       |
| <b>SP-A3 (P2H0440-11) Soil</b>       |        |                 |           |          |           | Sampled: 08/16/02 Received: 08/16/02 |          |         |       |
| Acenaphthene                         | ND     | 134             | ug/kg dry | 10       | EPA 8270m | 08/19/02                             | 08/20/02 | 2080631 |       |
| Acenaphthylene                       | ND     | 134             | "         | "        | "         | "                                    | "        | "       |       |
| Anthracene                           | 145    | 134             | "         | "        | "         | "                                    | "        | "       |       |
| Benzo (a) anthracene                 | 1050   | 134             | "         | "        | "         | "                                    | "        | "       |       |
| Benzo (a) pyrene                     | 2180   | 134             | "         | "        | "         | "                                    | "        | "       |       |
| Benzo (b) fluoranthene               | 967    | 134             | "         | "        | "         | "                                    | "        | "       |       |
| Benzo (ghi) perylene                 | 1760   | 134             | "         | "        | "         | "                                    | "        | "       |       |
| Benzo (k) fluoranthene               | 1090   | 134             | "         | "        | "         | "                                    | "        | "       |       |
| Chrysene                             | 1410   | 134             | "         | "        | "         | "                                    | "        | "       |       |
| Dibenzo (a,h) anthracene             | 445    | 134             | "         | "        | "         | "                                    | "        | "       |       |
| Fluoranthene                         | 969    | 134             | "         | "        | "         | "                                    | "        | "       |       |
| Fluorene                             | ND     | 134             | "         | "        | "         | "                                    | "        | "       |       |
| Indeno (1,2,3-cd) pyrene             | 1270   | 134             | "         | "        | "         | "                                    | "        | "       |       |
| Naphthalene                          | ND     | 134             | "         | "        | "         | "                                    | "        | "       |       |
| Phenanthrene                         | 458    | 134             | "         | "        | "         | "                                    | "        | "       |       |
| Pyrene                               | 2210   | 134             | "         | "        | "         | "                                    | "        | "       |       |
| Surr: Fluorene-d10                   | 41.6 % | 40-150          |           |          |           |                                      |          |         |       |
| Surr: Pyrene-d10                     | 59.2 % | 40-150          |           |          |           |                                      |          |         |       |
| Surr: Benzo (a) pyrene-d12           | 44.8 % | 40-150          |           |          |           |                                      |          |         |       |

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Project: POP - T-1  
Project Number: 15230  
Project Manager: Levi Fernandez

Reported:  
08/22/02 14:28

**Percent Dry Weight (Solids) per Standard Methods**  
**North Creek Analytical - Portland**

| Analyte                               | Result | Reporting Limit  | Units | Dilution | Method                               | Prepared | Analyzed | Batch   | Notes |
|---------------------------------------|--------|------------------|-------|----------|--------------------------------------|----------|----------|---------|-------|
| <b>T1-2N(3-10) (P2H0440-01) Soil</b>  |        |                  |       |          | Sampled: 08/16/02 Received: 08/16/02 |          |          |         |       |
| % Solids                              | 93.5   | 1.00 % by Weight | 1     | 1        | NCA SOP                              | 08/19/02 | 08/20/02 | 2080642 |       |
| <b>T1-2B (P2H0440-02) Soil</b>        |        |                  |       |          | Sampled: 08/16/02 Received: 08/16/02 |          |          |         |       |
| % Solids                              | 94.0   | 1.00 % by Weight | 1     | 1        | NCA SOP                              | 08/19/02 | 08/20/02 | 2080642 |       |
| <b>T1-2NW(0-3) (P2H0440-03) Soil</b>  |        |                  |       |          | Sampled: 08/16/02 Received: 08/16/02 |          |          |         |       |
| % Solids                              | 90.7   | 1.00 % by Weight | 1     | 1        | NCA SOP                              | 08/19/02 | 08/20/02 | 2080642 |       |
| <b>T1-2NW(3-10) (P2H0440-04) Soil</b> |        |                  |       |          | Sampled: 08/16/02 Received: 08/16/02 |          |          |         |       |
| % Solids                              | 71.2   | 1.00 % by Weight | 1     | 1        | NCA SOP                              | 08/19/02 | 08/20/02 | 2080642 |       |
| <b>T1-2W(0-3) (P2H0440-05) Soil</b>   |        |                  |       |          | Sampled: 08/16/02 Received: 08/16/02 |          |          |         |       |
| % Solids                              | 90.6   | 1.00 % by Weight | 1     | 1        | NCA SOP                              | 08/19/02 | 08/20/02 | 2080642 |       |
| <b>T1-2W(3-10) (P2H0440-06) Soil</b>  |        |                  |       |          | Sampled: 08/16/02 Received: 08/16/02 |          |          |         |       |
| % Solids                              | 86.9   | 1.00 % by Weight | 1     | 1        | NCA SOP                              | 08/19/02 | 08/20/02 | 2080642 |       |
| <b>T1-2FW(0-3) (P2H0440-07) Soil</b>  |        |                  |       |          | Sampled: 08/16/02 Received: 08/16/02 |          |          |         |       |
| % Solids                              | 95.7   | 1.00 % by Weight | 1     | 1        | NCA SOP                              | 08/19/02 | 08/20/02 | 2080642 |       |
| <b>T1-2FW(3-10) (P2H0440-08) Soil</b> |        |                  |       |          | Sampled: 08/16/02 Received: 08/16/02 |          |          |         |       |
| % Solids                              | 72.9   | 1.00 % by Weight | 1     | 1        | NCA SOP                              | 08/19/02 | 08/20/02 | 2080642 |       |
| <b>T1-2S(0-3) (P2H0440-09) Soil</b>   |        |                  |       |          | Sampled: 08/16/02 Received: 08/16/02 |          |          |         |       |
| % Solids                              | 91.6   | 1.00 % by Weight | 1     | 1        | NCA SOP                              | 08/19/02 | 08/20/02 | 2080642 |       |

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Project: POP - T-1  
Project Number: 15230  
Project Manager: Levi Fernandez

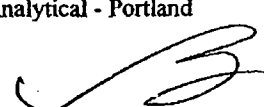
Reported:  
08/22/02 14:28

**Percent Dry Weight (Solids) per Standard Methods**  
**North Creek Analytical - Portland**

| Analyte                              | Result | Reporting<br>Limit | Units       | Dilution | Method                               | Prepared | Analyzed | Batch   | Notes |
|--------------------------------------|--------|--------------------|-------------|----------|--------------------------------------|----------|----------|---------|-------|
| <b>T1-2S(3-10) (P2H0440-10) Soil</b> |        |                    |             |          | Sampled: 08/16/02 Received: 08/16/02 |          |          |         |       |
| % Solids                             | 83.8   | 1.00               | % by Weight | 1        | NCA SOP                              | 08/19/02 | 08/20/02 | 2080642 |       |
| <b>SP-A3 (P2H0440-11) Soil</b>       |        |                    |             |          | Sampled: 08/16/02 Received: 08/16/02 |          |          |         |       |
| % Solids                             | 89.3   | 1.00               | % by Weight | 1        | NCA SOP                              | 08/19/02 | 08/20/02 | 2080642 |       |

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Project: POP - T-1  
Project Number: 15230  
Project Manager: Levi Fernandez

Reported:  
08/22/02 14:28

**Diesel and Heavy Range Hydrocarbons per NW TPH Dx Method - Quality Control**

**North Creek Analytical - Portland**

| Analyte                               | Result | Reporting<br>Limit | Units     | Spike<br>Level                | Source<br>Result | %REC<br>Limits                        | RPD    | RPD<br>Limit | Notes |
|---------------------------------------|--------|--------------------|-----------|-------------------------------|------------------|---------------------------------------|--------|--------------|-------|
| <b>Batch 2080628 - EPA 3550 Fuels</b> |        |                    |           |                               |                  |                                       |        |              |       |
| <b>Blank (2080628-BLK1)</b>           |        |                    |           | Prepared & Analyzed: 08/19/02 |                  |                                       |        |              |       |
| Diesel Range Organics                 | ND     | 25.0               | mg/kg     |                               |                  |                                       |        |              |       |
| Heavy Oil Range Hydrocarbons          | ND     | 50.0               | "         |                               |                  |                                       |        |              |       |
| Surr: 1-Chlorooctadecane              | 4.42   |                    | "         | 4.80                          |                  | 92.1                                  | 50-150 |              |       |
| <b>LCS (2080628-BS1)</b>              |        |                    |           | Prepared & Analyzed: 08/19/02 |                  |                                       |        |              |       |
| Diesel Range Organics                 | 107    | 25.0               | mg/kg     | 125                           |                  | 85.6                                  | 50-150 |              |       |
| Heavy Oil Range Hydrocarbons          | 68.0   | 50.0               | "         | 75.0                          |                  | 90.7                                  | 50-150 |              |       |
| Surr: 1-Chlorooctadecane              | 3.82   |                    | "         | 4.80                          |                  | 79.6                                  | 50-150 |              |       |
| <b>Duplicate (2080628-DUP1)</b>       |        |                    |           | Source: P2H0440-01            |                  | Prepared & Analyzed: 08/19/02         |        |              |       |
| Diesel Range Organics                 | ND     | 25.0               | mg/kg dry |                               | ND               |                                       |        | 50           |       |
| Heavy Oil Range Hydrocarbons          | ND     | 50.0               | "         |                               | ND               |                                       |        | 50           |       |
| Surr: 1-Chlorooctadecane              | 4.74   |                    | "         | 5.13                          |                  | 92.4                                  | 50-150 |              |       |
| <b>Duplicate (2080628-DUP2)</b>       |        |                    |           | Source: P2H0446-01            |                  | Prepared: 08/19/02 Analyzed: 08/20/02 |        |              |       |
| Diesel Range Organics                 | 13300  | 250                | mg/kg dry |                               | 10700            |                                       | 21.7   | 50           |       |
| Heavy Oil Range Hydrocarbons          | ND     | 500                | "         |                               | ND               |                                       |        | 50           | R-05  |
| Surr: 1-Chlorooctadecane              | 11.1   |                    | "         | 6.39                          |                  | 174                                   | 50-150 |              | S-09  |

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Project: POP - T-1  
Project Number: 15230  
Project Manager: Levi Fernandez

Reported:  
08/22/02 14:28

Polynuclear Aromatic Compounds per EPA 8270M-SIM-3 Quality Control

North Creek Analytical - Portland

| Analyte | Result | Reporting<br>Limit | Units | Spike<br>Level | Source<br>Result | %REC | %REC<br>Limits | RPD | RPD<br>Limit | Notes |
|---------|--------|--------------------|-------|----------------|------------------|------|----------------|-----|--------------|-------|
|---------|--------|--------------------|-------|----------------|------------------|------|----------------|-----|--------------|-------|

Batch 2080631 - EPA 3550

Blank (2080631-BLK1)

Prepared: 08/19/02 Analyzed: 08/20/02

|                          |    |      |       |
|--------------------------|----|------|-------|
| Acenaphthene             | ND | 13.4 | ug/kg |
| Acenaphthylene           | ND | 13.4 | "     |
| Anthracene               | ND | 13.4 | "     |
| Benzo (a) anthracene     | ND | 13.4 | "     |
| Benzo (a) pyrene         | ND | 13.4 | "     |
| Benzo (b) fluoranthene   | ND | 13.4 | "     |
| Benzo (ghi) perylene     | ND | 13.4 | "     |
| Benzo (k) fluoranthene   | ND | 13.4 | "     |
| Chrysene                 | ND | 13.4 | "     |
| Dibenzo (a,h) anthracene | ND | 13.4 | "     |
| Fluoranthene             | ND | 13.4 | "     |
| Fluorene                 | ND | 13.4 | "     |
| Indeno (1,2,3-cd) pyrene | ND | 13.4 | "     |
| Naphthalene              | ND | 13.4 | "     |
| Phenanthrene             | ND | 13.4 | "     |
| Pyrene                   | ND | 13.4 | "     |

|                            |      |   |      |      |        |
|----------------------------|------|---|------|------|--------|
| Surr: Fluorene-d10         | 44.3 | " | 83.3 | 53.2 | 40-150 |
| Surr: Pyrene-d10           | 67.1 | " | 83.3 | 80.6 | 40-150 |
| Surr: Benzo (a) pyrene-d12 | 56.3 | " | 83.3 | 67.6 | 40-150 |

LCS (2080631-BS1)

Prepared: 08/19/02 Analyzed: 08/20/02

|                            |      |      |       |      |      |        |
|----------------------------|------|------|-------|------|------|--------|
| Acenaphthene               | 71.9 | 13.4 | ug/kg | 167  | 43.1 | 33-139 |
| Benzo (a) pyrene           | 109  | 13.4 | "     | 167  | 65.3 | 45-149 |
| Pyrene                     | 116  | 13.4 | "     | 167  | 69.5 | 39-138 |
| Surr: Fluorene-d10         | 46.9 |      | "     | 83.3 | 56.3 | 40-150 |
| Surr: Pyrene-d10           | 65.3 |      | "     | 83.3 | 78.4 | 40-150 |
| Surr: Benzo (a) pyrene-d12 | 57.9 |      | "     | 83.3 | 69.5 | 40-150 |

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Five Centerpointe Drive  
Lake Oswego, OR 97035

Project: POP - T-1  
Project Number: 15230  
Project Manager: Levi Fernandez

Reported:  
08/22/02 14:28

Polynuclear Aromatic Compounds per EPA 8270M-SIM Quality Control

North Creek Analytical - Portland

| Analyte | Result | Reporting<br>Limit | Units | Spike<br>Level | Source<br>Result | %REC | %REC<br>Limits | RPD | RPD<br>Limit | Notes |
|---------|--------|--------------------|-------|----------------|------------------|------|----------------|-----|--------------|-------|
|---------|--------|--------------------|-------|----------------|------------------|------|----------------|-----|--------------|-------|

Batch 2080631 - EPA 3550

Matrix Spike (2080631-MS1) Source: P2H0440-01 Prepared: 08/19/02 Analyzed: 08/20/02


|                            |      |      |           |      |      |      |        |  |  |  |
|----------------------------|------|------|-----------|------|------|------|--------|--|--|--|
| Acenaphthene               | 79.9 | 13.4 | ug/kg dry | 178  | ND   | 38.8 | 33-139 |  |  |  |
| Benzo (a) pyrene           | 166  | 13.4 | "         | 178  | 79.6 | 48.5 | 45-149 |  |  |  |
| Pyrene                     | 250  | 13.4 | "         | 178  | 169  | 45.5 | 39-138 |  |  |  |
| Surr: Fluorene-d10         | 48.5 |      | "         | 89.1 |      | 54.4 | 40-150 |  |  |  |
| Surr: Pyrene-d10           | 69.1 |      | "         | 89.1 |      | 77.6 | 40-150 |  |  |  |
| Surr: Benzo (a) pyrene-d12 | 58.0 |      | "         | 89.1 |      | 65.1 | 40-150 |  |  |  |

Matrix Spike Dup (2080631-MSD1) Source: P2H0440-01 Prepared: 08/19/02 Analyzed: 08/20/02

|                            |      |      |           |      |      |      |        |      |    |  |
|----------------------------|------|------|-----------|------|------|------|--------|------|----|--|
| Acenaphthene               | 85.8 | 13.4 | ug/kg dry | 178  | ND   | 42.1 | 33-139 | 7.12 | 60 |  |
| Benzo (a) pyrene           | 168  | 13.4 | "         | 178  | 79.6 | 49.7 | 45-149 | 1.20 | 60 |  |
| Pyrene                     | 253  | 13.4 | "         | 178  | 169  | 47.2 | 39-138 | 1.19 | 60 |  |
| Surr: Fluorene-d10         | 47.4 |      | "         | 89.1 |      | 53.2 | 40-150 |      |    |  |
| Surr: Pyrene-d10           | 66.3 |      | "         | 89.1 |      | 74.4 | 40-150 |      |    |  |
| Surr: Benzo (a) pyrene-d12 | 56.8 |      | "         | 89.1 |      | 63.7 | 40-150 |      |    |  |

North Creek Analytical - Portland

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Crystal Burkholder For Lisa Domenighini, Project Manager

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541.383.9310 fax 541.382.7589

Hart Crowser  
Five Centerpointe Drive  
Lake Oswego, OR 97035

Project: POP - T-1  
Project Number: 15230  
Project Manager: Levi Fernandez

Reported:  
08/22/02 14:28

Percent Dry Weight (Solids) per Standard Methods - Quality Control

North Creek Analytical - Portland

| Analyte | Result | Reporting<br>Limit | Units | Spike<br>Level | Source<br>Result | %REC | %REC<br>Limits | RPD | RPD<br>Limit | Notes |
|---------|--------|--------------------|-------|----------------|------------------|------|----------------|-----|--------------|-------|
|---------|--------|--------------------|-------|----------------|------------------|------|----------------|-----|--------------|-------|

Batch 2080642 - Dry Weight

Duplicate (2080642-DUP1) Source: P2H0440-10 Prepared: 08/19/02 Analyzed: 08/20/02

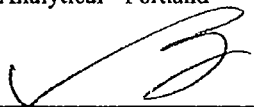
|          |      |                  |  |      |  |  |       |    |  |
|----------|------|------------------|--|------|--|--|-------|----|--|
| % Solids | 83.9 | 1.00 % by Weight |  | 83.8 |  |  | 0.119 | 20 |  |
|----------|------|------------------|--|------|--|--|-------|----|--|

Duplicate (2080642-DUP2) Source: P2H0442-01 Prepared: 08/19/02 Analyzed: 08/20/02

|          |      |                  |  |      |  |  |       |    |  |
|----------|------|------------------|--|------|--|--|-------|----|--|
| % Solids | 77.1 | 1.00 % by Weight |  | 77.0 |  |  | 0.130 | 20 |  |
|----------|------|------------------|--|------|--|--|-------|----|--|

North Creek Analytical - Portland

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POPT1S603022



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Hart Crowser  
Five Centerpointe Drive  
Lake Oswego, OR 97035

Project: POP - T-1  
Project Number: 15230  
Project Manager: Levi Fernandez

Reported:  
08/22/02 14:28

### Notes and Definitions

- A-02 Detected hydrocarbons have distinct peaks that have elution patterns similar to that of PAH's, as well as other extraneous peaks that may be due to biogenic interference.
- D-15 Detected hydrocarbons have non-petroleum peaks or elution pattern that suggests the presence of biogenic interference.
- R-05 Reporting limits raised due to dilution necessary for analysis. Sample contains high levels of reported analyte, non-target analyte, and/or matrix interference.
- S-09 Surrogate recovery is outside control limits due to matrix interference.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis. MRLs are adjusted if %Solids are less than 50%.
- wet Sample results reported on a wet weight basis (as received)
- RPD Relative Percent Difference

North Creek Analytical - Portland

Crystal Burkholder For Lisa Domenighini, Project Manager

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POPT1S603023



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(425) 420-9200 FAX 420-9210  
(509) 924-9200 FAX 924-9290  
(503) 906-9200 FAX 906-9210  
(541) 383-9310 FAX 382-7588

# CHAIN OF CUSTODY REPORT

Work Order #: **P2H0440**

|   |                    |   |        |
|---|--------------------|---|--------|
| CLIENT: <b>Port of Portland - Hart Crowser</b>        |                    | INVOICE TO: <b>HART CROWSER</b>                       |        |
| REPORT TO: <b>L. FERNANDEZ</b>                        |                    |   |        |
| ADDRESS: <b>LAKE OSWEGO</b>                           |                    |   |        |
| PHONE: <b>503 620 7284</b>                            | FAX: <b>-6918</b>  | P.O. NUMBER:  |        |
| PROJECT NAME: <b>+1 South</b>                         |                    | REQUESTED ANALYSES                                    |        |
| PROJECT NUMBER: <b>15230</b>                          |                    |   |        |
| SAMPLED BY: <b>KAK</b>                                |                    |   |        |
| CLIENT SAMPLE IDENTIFICATION                          | SAMPLING DATE/TIME | PAH 8270-EM   | TPH-DX |
| 1. T1-2N(3-10)  | 8/16 1415          | X   | X      |
| 2. T1-2B  | 1425               |   | X      |
| 3. T1-2NW(0-3)  | 1440               |   | X      |
| 4. T1-2NW(3-10)                                       | 1445               |   | X      |
| 5. T1-2W(0-3)   | 1450               | X   | X      |
| 6. T1-2W(3-10)  | 1455               | X   | X      |
| 7. T1-2FW(0-3)  | 1505               | X   | X      |
| 8. T1-2FW(3-10)                                       | 1510               |   | X      |
| 9. T1-2S(0-3)   | 1520               |   | X      |
| 10. T1-2S(3-10)                                       | 1525               |   | X      |
| 11. SP-A3   | 1540               | X   | X      |
| 12.   |                    |   |        |
| 13.   |                    |   |        |
| 14.   |                    |   |        |
| 15.   |                    |   |        |
| RELINQUISHED BY: <b>KEITH KROEGER</b> FIRM: <b>HC</b> |                    | RECEIVED BY: <b>Callie Falscholz</b> FIRM: <b>NCA</b> |        |
| DATE: <b>8/16/02</b> TIME: <b>1615</b>                |                    | DATE: <b>8/16/02</b> TIME: <b>1615</b>                |        |
| RELINQUISHED BY:                                      |                    | RECEIVED BY:  |        |
| PRINT NAME: FIRM:                                     |                    | PRINT NAME: FIRM:                                     |        |
| DATE: TIME:   |                    | DATE: TIME:   |        |
| ADDITIONAL REMARKS:                                   |                    | TEMP: <b>30.5</b> PAGE OF                             |        |
| COC REV 3/99  |                    | <b>cc: client</b>                                     |        |

## TURNAROUND REQUEST in Business Days\*

Organic & Inorganic Analyses

10 7 5 4 3 2 1 <1

STD.

Petroleum Hydrocarbon Analyses

5 4 3 2 1 <1

STD.

Please Specify

OTHER

\*Turnaround Requests less than standard may incur Rush Charges.

MATRIX (W, S, O) # OF CONT. COMMENTS NCA WO ID

S 2 48hr TURN  
STD TURNAROUND  
48hr TURN

POPT1S603024





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Hart Crowser  
Five Centerpointe Drive  
Lake Oswego, OR 97035

Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Levi Fernandez

Reported:  
08/23/02 13:54

#### ANALYTICAL REPORT FOR SAMPLES

| Sample ID | Laboratory ID | Matrix | Date Sampled   | Date Received  |
|-----------|---------------|--------|----------------|----------------|
| SP1-A3    | P2H0488-01    | Soil   | 08/19/02 12:00 | 08/19/02 15:57 |
| SP2-A3    | P2H0488-02    | Soil   | 08/19/02 12:00 | 08/19/02 15:57 |
| SP3-A3    | P2H0488-03    | Soil   | 08/19/02 12:00 | 08/19/02 15:57 |
| SP4-A3    | P2H0488-04    | Soil   | 08/19/02 12:00 | 08/19/02 15:57 |
| SP5-A3    | P2H0488-05    | Soil   | 08/19/02 12:00 | 08/19/02 15:57 |

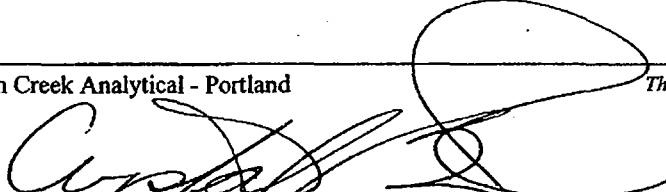
HART CROWSER, INC.

AUG 27 2002

Portland Office

North Creek Analytical - Portland

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Crystal Burkholder For Lisa Domenighini, Project Manager

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Environmental Laboratory Network

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Hart Crowser  
Five Centerpointe Drive  
Lake Oswego, OR 97035

Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Levi Fernandez

Reported:  
08/23/02 13:54

**Diesel and Heavy Range Hydrocarbons per NWTPH-Dx Method**  
**North Creek Analytical - Portland**

| Analyte  | Result | Reporting Limit | Units     | Dilution | Method   | Prepared | Analyzed | Batch   | Notes |
|--|--------|-----------------|-----------|----------|----------|----------|----------|---------|-------|
| SP1-A3 (P2H0488-01) Soil <span style="float:right">Sampled: 08/19/02 Received: 08/19/02</span> |        |                 |           |          |          |          |          |         |       |
| Diesel Range Organics  | ND     | 25.0            | mg/kg dry | 1        | NWTPH-Dx | 08/20/02 | 08/21/02 | 2080707 |       |
| Heavy Oil Range Hydrocarbons   | 136    | 50.0            | "         | "        | "        | "        | "        | "       |       |
| Surr: 1-Chlorooctadecane   | 83.9 % | 50-150          |           |          |          |          |          |         |       |
| SP2-A3 (P2H0488-02) Soil <span style="float:right">Sampled: 08/19/02 Received: 08/19/02</span> |        |                 |           |          |          |          |          |         |       |
| Diesel Range Organics  | ND     | 50.0            | mg/kg dry | 2        | NWTPH-Dx | 08/20/02 | 08/21/02 | 2080707 | R-05  |
| Heavy Oil Range Hydrocarbons   | 161    | 100             | "         | "        | "        | "        | "        | "       |       |
| Surr: 1-Chlorooctadecane   | 80.0 % | 50-150          |           |          |          |          |          |         |       |
| SP3-A3 (P2H0488-03) Soil <span style="float:right">Sampled: 08/19/02 Received: 08/19/02</span> |        |                 |           |          |          |          |          |         |       |
| Diesel Range Organics  | ND     | 50.0            | mg/kg dry | 2        | NWTPH-Dx | 08/20/02 | 08/21/02 | 2080707 | R-05  |
| Heavy Oil Range Hydrocarbons   | 159    | 100             | "         | "        | "        | "        | "        | "       |       |
| Surr: 1-Chlorooctadecane   | 84.5 % | 50-150          |           |          |          |          |          |         |       |
| SP4-A3 (P2H0488-04) Soil <span style="float:right">Sampled: 08/19/02 Received: 08/19/02</span> |        |                 |           |          |          |          |          |         |       |
| Diesel Range Organics  | ND     | 50.0            | mg/kg dry | 2        | NWTPH-Dx | 08/20/02 | 08/21/02 | 2080707 | R-05  |
| Heavy Oil Range Hydrocarbons   | ND     | 100             | "         | "        | "        | "        | "        | "       |       |
| Surr: 1-Chlorooctadecane   | 80.7 % | 50-150          |           |          |          |          |          |         |       |
| SP5-A3 (P2H0488-05) Soil <span style="float:right">Sampled: 08/19/02 Received: 08/19/02</span> |        |                 |           |          |          |          |          |         |       |
| Diesel Range Organics  | ND     | 250             | mg/kg dry | 10       | NWTPH-Dx | 08/20/02 | 08/21/02 | 2080707 | R-05  |
| Heavy Oil Range Hydrocarbons   | 780    | 500             | "         | "        | "        | "        | "        | "       |       |
| Surr: 1-Chlorooctadecane   | 83.6 % | 50-150          |           |          |          |          |          |         |       |

North Creek Analytical - Portland

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Hart Crowser  
Five Centerpointe Drive  
Lake Oswego, OR 97035

Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Levi Fernandez

Reported:  
08/23/02 13:54

**Percent Dry Weight (Solids) per Standard Methods**  
**North Creek Analytical - Portland**

| Analyte                  | Result | Reporting<br>Limit | Units       | Dilution | Method  | Prepared                             | Analyzed | Batch   | Notes |
|--------------------------|--------|--------------------|-------------|----------|---------|--------------------------------------|----------|---------|-------|
| SP1-A3 (P2H0488-01) Soil |        |                    |             |          |         | Sampled: 08/19/02 Received: 08/19/02 |          |         |       |
| % Solids                 | 88.6   | 1.00               | % by Weight | 1        | NCA SOP | 08/20/02                             | 08/21/02 | 2080690 |       |
| SP2-A3 (P2H0488-02) Soil |        |                    |             |          |         | Sampled: 08/19/02 Received: 08/19/02 |          |         |       |
| % Solids                 | 90.7   | 1.00               | % by Weight | 1        | NCA SOP | 08/20/02                             | 08/21/02 | 2080690 |       |
| SP3-A3 (P2H0488-03) Soil |        |                    |             |          |         | Sampled: 08/19/02 Received: 08/19/02 |          |         |       |
| % Solids                 | 89.5   | 1.00               | % by Weight | 1        | NCA SOP | 08/20/02                             | 08/21/02 | 2080690 |       |
| SP4-A3 (P2H0488-04) Soil |        |                    |             |          |         | Sampled: 08/19/02 Received: 08/19/02 |          |         |       |
| % Solids                 | 86.8   | 1.00               | % by Weight | 1        | NCA SOP | 08/20/02                             | 08/21/02 | 2080690 |       |
| SP5-A3 (P2H0488-05) Soil |        |                    |             |          |         | Sampled: 08/19/02 Received: 08/19/02 |          |         |       |
| % Solids                 | 80.5   | 1.00               | % by Weight | 1        | NCA SOP | 08/20/02                             | 08/21/02 | 2080690 |       |

North Creek Analytical - Portland

Crystal Burkholder For Lisa Domenighini, Project Manager

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Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Levi Fernandez

Reported:  
08/23/02 13:54

**Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring**  
**North Creek Analytical - Bothell**

| Analyte                  | Result | Reporting Limit | Units     | Dilution | Method       | Prepared                             | Analyzed | Batch   | Note |
|--------------------------|--------|-----------------|-----------|----------|--------------|--------------------------------------|----------|---------|------|
| SP1-A3 (P2H0488-01) Soil |        |                 |           |          |              | Sampled: 08/19/02 Received: 08/19/02 |          |         |      |
| Acenaphthene             | ND     | 0.0200          | mg/kg dry | 2        | EPA 8270 Mod | 08/22/02                             | 08/23/02 | 2H22019 |      |
| Acenaphthylene           | ND     | 0.0200          | "         | "        | "            | "                                    | "        | "       |      |
| Anthracene               | 0.0256 | 0.0200          | "         | "        | "            | "                                    | "        | "       |      |
| Benzo (a) anthracene     | 0.0648 | 0.0200          | "         | "        | "            | "                                    | "        | "       |      |
| Benzo (a) pyrene         | 0.0965 | 0.0200          | "         | "        | "            | "                                    | "        | "       |      |
| Benzo (b) fluoranthene   | 0.0678 | 0.0200          | "         | "        | "            | "                                    | "        | "       |      |
| Benzo (ghi) perylene     | 0.0935 | 0.0200          | "         | "        | "            | "                                    | "        | "       |      |
| Benzo (k) fluoranthene   | 0.0573 | 0.0200          | "         | "        | "            | "                                    | "        | "       |      |
| Chrysene                 | 0.0769 | 0.0200          | "         | "        | "            | "                                    | "        | "       |      |
| Dibenz (a,h) anthracene  | 0.0256 | 0.0200          | "         | "        | "            | "                                    | "        | "       |      |
| Fluoranthene             | 0.115  | 0.0200          | "         | "        | "            | "                                    | "        | "       |      |
| Fluorene                 | 0.0332 | 0.0200          | "         | "        | "            | "                                    | "        | "       |      |
| Indeno (1,2,3-cd) pyrene | 0.0573 | 0.0200          | "         | "        | "            | "                                    | "        | "       |      |
| Naphthalene              | ND     | 0.0200          | "         | "        | "            | "                                    | "        | "       |      |
| Phenanthrene             | 0.0874 | 0.0200          | "         | "        | "            | "                                    | "        | "       |      |
| Pyrene                   | 0.225  | 0.0200          | "         | "        | "            | "                                    | "        | "       |      |
| Surr: p-Terphenyl-d14    | 112 %  | 42-144          |           |          |              |                                      |          |         |      |

|                          |        |        |           |   |              |                                      |          |         |  |
|--------------------------|--------|--------|-----------|---|--------------|--------------------------------------|----------|---------|--|
| SP2-A3 (P2H0488-02) Soil |        |        |           |   |              | Sampled: 08/19/02 Received: 08/19/02 |          |         |  |
| Acenaphthene             | 0.0519 | 0.0200 | mg/kg dry | 2 | EPA 8270 Mod | 08/22/02                             | 08/23/02 | 2H22019 |  |
| Acenaphthylene           | 0.0735 | 0.0200 | "         | " | "            | "                                    | "        | "       |  |
| Anthracene               | 0.209  | 0.0200 | "         | " | "            | "                                    | "        | "       |  |
| Benzo (a) anthracene     | 0.451  | 0.0200 | "         | " | "            | "                                    | "        | "       |  |
| Benzo (a) pyrene         | 0.809  | 0.0200 | "         | " | "            | "                                    | "        | "       |  |
| Benzo (b) fluoranthene   | 0.363  | 0.0200 | "         | " | "            | "                                    | "        | "       |  |
| Benzo (ghi) perylene     | 0.655  | 0.0200 | "         | " | "            | "                                    | "        | "       |  |
| Benzo (k) fluoranthene   | 0.456  | 0.0200 | "         | " | "            | "                                    | "        | "       |  |
| Chrysene                 | 0.484  | 0.0200 | "         | " | "            | "                                    | "        | "       |  |
| Dibenz (a,h) anthracene  | 0.186  | 0.0200 | "         | " | "            | "                                    | "        | "       |  |
| Fluoranthene             | 0.665  | 0.0200 | "         | " | "            | "                                    | "        | "       |  |
| Fluorene                 | 0.0807 | 0.0200 | "         | " | "            | "                                    | "        | "       |  |
| Indeno (1,2,3-cd) pyrene | 0.430  | 0.0200 | "         | " | "            | "                                    | "        | "       |  |
| Naphthalene              | 0.0303 | 0.0200 | "         | " | "            | "                                    | "        | "       |  |
| Phenanthrene             | 0.502  | 0.0200 | "         | " | "            | "                                    | "        | "       |  |
| Pyrene                   | 1.20   | 0.0200 | "         | " | "            | "                                    | "        | "       |  |
| Surr: p-Terphenyl-d14    | 106 %  | 42-144 |           |   |              |                                      |          |         |  |

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POPT1S603028



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Hart Crowser  
Five Centerpointe Drive  
Lake Oswego, OR 97035

Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Levi Fernandez

Reported:  
08/23/02 13:54

**Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring**  
**North Creek Analytical - Bothell**

| Analyte                  | Result | Reporting Limit | Units     | Dilution | Method       | Prepared                             | Analyzed | Batch   | Notes |
|--------------------------|--------|-----------------|-----------|----------|--------------|--------------------------------------|----------|---------|-------|
| SP3-A3 (P2H0488-03) Soil |        |                 |           |          |              | Sampled: 08/19/02 Received: 08/19/02 |          |         |       |
| Acenaphthene             | 0.0699 | 0.0200          | mg/kg dry | 2        | EPA 8270 Mod | 08/22/02                             | 08/23/02 | 2H22019 |       |
| Acenaphthylene           | 0.0539 | 0.0200          | "         | "        | "            | "                                    | "        | "       |       |
| Anthracene               | 0.221  | 0.0200          | "         | "        | "            | "                                    | "        | "       |       |
| Benzo (a) anthracene     | 0.662  | 0.0200          | "         | "        | "            | "                                    | "        | "       |       |
| Benzo (a) pyrene         | 0.822  | 0.0200          | "         | "        | "            | "                                    | "        | "       |       |
| Benzo (b) fluoranthene   | 0.465  | 0.0200          | "         | "        | "            | "                                    | "        | "       |       |
| Benzo (ghi) perylene     | 0.495  | 0.0200          | "         | "        | "            | "                                    | "        | "       |       |
| Benzo (k) fluoranthene   | 0.490  | 0.0200          | "         | "        | "            | "                                    | "        | "       |       |
| Chrysene                 | 0.689  | 0.0200          | "         | "        | "            | "                                    | "        | "       |       |
| Dibenz (a,h) anthracene  | 0.165  | 0.0200          | "         | "        | "            | "                                    | "        | "       |       |
| Fluoranthene             | 0.970  | 0.0200          | "         | "        | "            | "                                    | "        | "       |       |
| Fluorene                 | 0.106  | 0.0200          | "         | "        | "            | "                                    | "        | "       |       |
| Indeno (1,2,3-cd) pyrene | 0.364  | 0.0200          | "         | "        | "            | "                                    | "        | "       |       |
| Naphthalene              | 0.0379 | 0.0200          | "         | "        | "            | "                                    | "        | "       |       |
| Phenanthrene             | 0.667  | 0.0200          | "         | "        | "            | "                                    | "        | "       |       |
| Pyrene                   | 1.93   | 0.0200          | "         | "        | "            | "                                    | "        | "       |       |
| Surr: p-Terphenyl-d14    | 102 %  | 42-144          |           |          |              |                                      |          |         |       |

|                          |        |        |           |   |              |                                      |          |         |  |
|--------------------------|--------|--------|-----------|---|--------------|--------------------------------------|----------|---------|--|
| SP4-A3 (P2H0488-04) Soil |        |        |           |   |              | Sampled: 08/19/02 Received: 08/19/02 |          |         |  |
| Acenaphthene             | ND     | 0.0200 | mg/kg dry | 2 | EPA 8270 Mod | 08/22/02                             | 08/23/02 | 2H22019 |  |
| Acenaphthylene           | 0.0515 | 0.0200 | "         | " | "            | "                                    | "        | "       |  |
| Anthracene               | 0.120  | 0.0200 | "         | " | "            | "                                    | "        | "       |  |
| Benzo (a) anthracene     | 0.333  | 0.0200 | "         | " | "            | "                                    | "        | "       |  |
| Benzo (a) pyrene         | 0.346  | 0.0200 | "         | " | "            | "                                    | "        | "       |  |
| Benzo (b) fluoranthene   | 0.208  | 0.0200 | "         | " | "            | "                                    | "        | "       |  |
| Benzo (ghi) perylene     | 0.200  | 0.0200 | "         | " | "            | "                                    | "        | "       |  |
| Benzo (k) fluoranthene   | 0.291  | 0.0200 | "         | " | "            | "                                    | "        | "       |  |
| Chrysene                 | 0.303  | 0.0200 | "         | " | "            | "                                    | "        | "       |  |
| Dibenz (a,h) anthracene  | 0.0788 | 0.0200 | "         | " | "            | "                                    | "        | "       |  |
| Fluoranthene             | 0.524  | 0.0200 | "         | " | "            | "                                    | "        | "       |  |
| Fluorene                 | 0.0455 | 0.0200 | "         | " | "            | "                                    | "        | "       |  |
| Indeno (1,2,3-cd) pyrene | 0.153  | 0.0200 | "         | " | "            | "                                    | "        | "       |  |
| Naphthalene              | ND     | 0.0200 | "         | " | "            | "                                    | "        | "       |  |
| Phenanthrene             | 0.289  | 0.0200 | "         | " | "            | "                                    | "        | "       |  |
| Pyrene                   | 0.750  | 0.0200 | "         | " | "            | "                                    | "        | "       |  |
| Surr: p-Terphenyl-d14    | 107 %  | 42-144 |           |   |              |                                      |          |         |  |

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Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Levi Fernandez

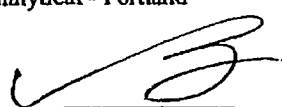
Reported:  
08/23/02 13:54

**Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring**  
**North Creek Analytical - Bothell**

| Analyte                  | Result | Reporting<br>Limit | Units     | Dilution | Method       | Prepared                             | Analyzed | Batch   | Note |
|--------------------------|--------|--------------------|-----------|----------|--------------|--------------------------------------|----------|---------|------|
| SP5-A3 (P2H0488-05) Soil |        |                    |           |          |              | Sampled: 08/19/02 Received: 08/19/02 |          |         |      |
| Acenaphthene             | 0.251  | 0.0500             | mg/kg dry | 5        | EPA 8270 Mod | 08/20/02                             | 08/22/02 | 2H20034 |      |
| Acenaphthylene           | 0.170  | 0.0500             | "         | "        | "            | "                                    | "        | "       |      |
| Anthracene               | 0.595  | 0.0500             | "         | "        | "            | "                                    | "        | "       |      |
| Benzo (a) anthracene     | 3.70   | 0.0500             | "         | "        | "            | "                                    | "        | "       |      |
| Benzo (a) pyrene         | 4.70   | 0.0500             | "         | "        | "            | "                                    | "        | "       |      |
| Benzo (b) fluoranthene   | 2.34   | 0.0500             | "         | "        | "            | "                                    | "        | "       |      |
| Benzo (ghi) perylene     | 2.54   | 0.0500             | "         | "        | "            | "                                    | "        | "       |      |
| Benzo (k) fluoranthene   | 2.64   | 0.0500             | "         | "        | "            | "                                    | "        | "       |      |
| Chrysene                 | 3.72   | 0.0500             | "         | "        | "            | "                                    | "        | "       |      |
| Dibenz (a,h) anthracene  | 0.916  | 0.0500             | "         | "        | "            | "                                    | "        | "       |      |
| Fluoranthene             | 6.41   | 0.0500             | "         | "        | "            | "                                    | "        | "       |      |
| Fluorene                 | 0.267  | 0.0500             | "         | "        | "            | "                                    | "        | "       |      |
| Indeno (1,2,3-cd) pyrene | 1.88   | 0.0500             | "         | "        | "            | "                                    | "        | "       |      |
| Naphthalene              | 0.255  | 0.0500             | "         | "        | "            | "                                    | "        | "       |      |
| Phenanthrene             | 3.24   | 0.0500             | "         | "        | "            | "                                    | "        | "       |      |
| Pyrene                   | 10.7   | 0.500              | "         | 50       | "            | "                                    | 08/22/02 | "       |      |
| Surr: p-Terphenyl-d14    | 105 %  | 42-144             |           |          |              |                                      |          |         |      |

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Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Levi Fernandez

Reported:  
08/23/02 13:54

**Physical Parameters by APHA/ASTM/EPA Methods**  
**North Creek Analytical - Bothell**

| Analyte                  | Result | Reporting<br>Limit | Units | Dilution | Method      | Prepared                             | Analyzed | Batch   | Notes |
|--------------------------|--------|--------------------|-------|----------|-------------|--------------------------------------|----------|---------|-------|
| SP1-A3 (P2H0488-01) Soil |        |                    |       |          |             | Sampled: 08/19/02 Received: 08/19/02 |          |         |       |
| Dry Weight               | 88.2   | 1.00               | %     | 1        | BSOPSPL003R | 08/22/02                             | 08/23/02 | 2H22018 |       |
| SP2-A3 (P2H0488-02) Soil |        |                    |       |          |             | Sampled: 08/19/02 Received: 08/19/02 |          |         |       |
| Dry Weight               | 92.5   | 1.00               | %     | 1        | BSOPSPL003R | 08/22/02                             | 08/23/02 | 2H22018 |       |
| SP3-A3 (P2H0488-03) Soil |        |                    |       |          |             | Sampled: 08/19/02 Received: 08/19/02 |          |         |       |
| Dry Weight               | 91.2   | 1.00               | %     | 1        | BSOPSPL003R | 08/22/02                             | 08/23/02 | 2H22018 |       |
| SP4-A3 (P2H0488-04) Soil |        |                    |       |          |             | Sampled: 08/19/02 Received: 08/19/02 |          |         |       |
| Dry Weight               | 87.4   | 1.00               | %     | 1        | BSOPSPL003R | 08/22/02                             | 08/23/02 | 2H22018 |       |
| SP5-A3 (P2H0488-05) Soil |        |                    |       |          |             | Sampled: 08/19/02 Received: 08/19/02 |          |         |       |
| Dry Weight               | 86.3   | 1.00               | %     | 1        | BSOPSPL003R | 08/20/02                             | 08/21/02 | 2H20016 |       |

North Creek Analytical - Portland

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Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Levi Fernandez

Reported:  
08/23/02 13:54


**Diesel and Heavy Range Hydrocarbons per NW-TPH-Dx Method - Quality Control**

**North Creek Analytical - Portland**

| Analyte                               | Result | Reporting<br>Limit | Units     | Spike<br>Level | Source<br>Result   | %REC<br>Limits | RPD    | RPD<br>Limit | Notes |
|---------------------------------------|--------|--------------------|-----------|----------------|--|----------------|--------|--------------|-------|
| <b>Batch 2080707 - EPA 3550 Fuels</b> |        |                    |           |                |  |                |        |              |       |
| <b>Blank (2080707-BLK1)</b>           |        |                    |           |                | Prepared: 08/20/02 Analyzed: 08/21/02                    |                |        |              |       |
| Diesel Range Organics                 | ND     | 25.0               | mg/kg     |                |  |                |        |              |       |
| Heavy Oil Range Hydrocarbons          | ND     | 50.0               | "         |                |  |                |        |              |       |
| Surr: 1-Chlorooctadecane              | 3.81   |                    | "         | 4.80           |  | 79.4           | 50-150 |              |       |
| <b>LCS (2080707-BS1)</b>              |        |                    |           |                | Prepared: 08/20/02 Analyzed: 08/21/02                    |                |        |              |       |
| Diesel Range Organics                 | 101    | 25.0               | mg/kg     | 125            |  | 80.8           | 50-150 |              |       |
| Heavy Oil Range Hydrocarbons          | 69.2   | 50.0               | "         | 75.0           |  | 92.3           | 50-150 |              |       |
| Surr: 1-Chlorooctadecane              | 3.78   |                    | "         | 4.80           |  | 78.8           | 50-150 |              |       |
| <b>Duplicate (2080707-DUP1)</b>       |        |                    |           |                | Source: P2H0488-01 Prepared: 08/20/02 Analyzed: 08/21/02 |                |        |              |       |
| Diesel Range Organics                 | ND     | 25.0               | mg/kg dry |                | ND   |                |        | 50           |       |
| Heavy Oil Range Hydrocarbons          | 139    | 50.0               | "         |                | 136  |                | 2.18   | 50           |       |
| Surr: 1-Chlorooctadecane              | 4.96   |                    | "         | 5.42           |  | 91.5           | 50-150 |              |       |

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Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Levi Fernandez

Reported:  
08/23/02 13:54

**Percent Dry Weight (Solids) per Standard Methods: Quality Control**

**North Creek Analytical - Portland**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|
|---------|--------|-----------------|-------|-------------|---------------|------|-------------|-----|-----------|-------|

**Batch 2080690 - Dry Weight**

|                                 |                           |                  |  |  |      |  |  |       |    |  |
|---------------------------------|---------------------------|------------------|--|--|------|--|--|-------|----|--|
| <b>Duplicate (2080690-DUP1)</b> | <b>Source: P2H0413-09</b> |                  | <b>Prepared: 08/20/02 Analyzed: 08/21/02</b> |  |      |  |  |       |    |  |
| % Solids                        | 89.7                      | 1.00 % by Weight |  |  | 88.2 |  |  | 1.69  | 20 |  |
| <b>Duplicate (2080690-DUP2)</b> | <b>Source: P2H0417-01</b> |                  | <b>Prepared: 08/20/02 Analyzed: 08/21/02</b> |  |      |  |  |       |    |  |
| % Solids                        | 94.9                      | 1.00 % by Weight |  |  | 94.3 |  |  | 0.634 | 20 |  |
| <b>Duplicate (2080690-DUP3)</b> | <b>Source: P2H0421-01</b> |                  | <b>Prepared: 08/20/02 Analyzed: 08/21/02</b> |  |      |  |  |       |    |  |
| % Solids                        | 93.5                      | 1.00 % by Weight |  |  | 92.9 |  |  | 0.644 | 20 |  |
| <b>Duplicate (2080690-DUP4)</b> | <b>Source: P2H0422-01</b> |                  | <b>Prepared: 08/20/02 Analyzed: 08/21/02</b> |  |      |  |  |       |    |  |
| % Solids                        | 80.4                      | 1.00 % by Weight |  |  | 86.5 |  |  | 7.31  | 20 |  |
| <b>Duplicate (2080690-DUP5)</b> | <b>Source: P2H0423-02</b> |                  | <b>Prepared: 08/20/02 Analyzed: 08/21/02</b> |  |      |  |  |       |    |  |
| % Solids                        | 68.4                      | 1.00 % by Weight |  |  | 64.6 |  |  | 5.71  | 20 |  |
| <b>Duplicate (2080690-DUP6)</b> | <b>Source: P2H0476-01</b> |                  | <b>Prepared: 08/20/02 Analyzed: 08/21/02</b> |  |      |  |  |       |    |  |
| % Solids                        | 21.3                      | 1.00 % by Weight |  |  | 19.1 |  |  | 10.9  | 20 |  |
| <b>Duplicate (2080690-DUP7)</b> | <b>Source: P2H0520-01</b> |                  | <b>Prepared: 08/20/02 Analyzed: 08/21/02</b> |  |      |  |  |       |    |  |
| % Solids                        | 90.7                      | 1.00 % by Weight |  |  | 91.1 |  |  | 0.440 | 20 |  |

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Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Levi Fernandez

Reported:  
08/23/02 13:54

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring - Quality Control

North Creek Analytical - Bothell

| Analyte | Result | Reporting<br>Limit | Units | Spike<br>Level | Source<br>Result | %REC | %REC<br>Limits | RPD | RPD<br>Limit | Notes |
|---------|--------|--------------------|-------|----------------|------------------|------|----------------|-----|--------------|-------|
|---------|--------|--------------------|-------|----------------|------------------|------|----------------|-----|--------------|-------|

Batch 2H20034 - EPA 3550B

Blank (2H20034-BLK1)

Prepared: 08/20/02 Analyzed: 08/22/02

|                          |    |        |       |  |  |  |  |  |  |  |
|--------------------------|----|--------|-------|--|--|--|--|--|--|--|
| Acenaphthene             | ND | 0.0100 | mg/kg |  |  |  |  |  |  |  |
| Acenaphthylene           | ND | 0.0100 | "     |  |  |  |  |  |  |  |
| Anthracene               | ND | 0.0100 | "     |  |  |  |  |  |  |  |
| Benzo (a) anthracene     | ND | 0.0100 | "     |  |  |  |  |  |  |  |
| Benzo (a) pyrene         | ND | 0.0100 | "     |  |  |  |  |  |  |  |
| Benzo (b) fluoranthene   | ND | 0.0100 | "     |  |  |  |  |  |  |  |
| Benzo (ghi) perylene     | ND | 0.0100 | "     |  |  |  |  |  |  |  |
| Benzo (k) fluoranthene   | ND | 0.0100 | "     |  |  |  |  |  |  |  |
| Chrysene                 | ND | 0.0100 | "     |  |  |  |  |  |  |  |
| Dibenz (a,h) anthracene  | ND | 0.0100 | "     |  |  |  |  |  |  |  |
| Fluoranthene             | ND | 0.0100 | "     |  |  |  |  |  |  |  |
| Fluorene                 | ND | 0.0100 | "     |  |  |  |  |  |  |  |
| Indeno (1,2,3-cd) pyrene | ND | 0.0100 | "     |  |  |  |  |  |  |  |
| Naphthalene              | ND | 0.0100 | "     |  |  |  |  |  |  |  |
| Phenanthrene             | ND | 0.0100 | "     |  |  |  |  |  |  |  |
| Pyrene                   | ND | 0.0100 | "     |  |  |  |  |  |  |  |

Surr: p-Terphenyl-d14 1.54 " 1.67 92.2 42-144

LCS (2H20034-BS1)

Prepared: 08/20/02 Analyzed: 08/22/02

|                          |       |        |       |       |  |      |        |  |  |  |
|--------------------------|-------|--------|-------|-------|--|------|--------|--|--|--|
| Chrysene                 | 0.222 | 0.0100 | mg/kg | 0.333 |  | 66.7 | 60-117 |  |  |  |
| Fluorene                 | 0.227 | 0.0100 | "     | 0.333 |  | 68.2 | 61-120 |  |  |  |
| Indeno (1,2,3-cd) pyrene | 0.219 | 0.0100 | "     | 0.333 |  | 65.8 | 45-119 |  |  |  |

Surr: p-Terphenyl-d14 1.28 " 1.67 76.6 42-144

LCS Dup (2H20034-BSD1)

Prepared: 08/20/02 Analyzed: 08/22/02

|                          |       |        |       |       |  |      |        |       |    |  |
|--------------------------|-------|--------|-------|-------|--|------|--------|-------|----|--|
| Chrysene                 | 0.231 | 0.0100 | mg/kg | 0.333 |  | 69.4 | 60-117 | 3.97  | 28 |  |
| Fluorene                 | 0.245 | 0.0100 | "     | 0.333 |  | 73.6 | 61-120 | 7.63  | 32 |  |
| Indeno (1,2,3-cd) pyrene | 0.221 | 0.0100 | "     | 0.333 |  | 66.4 | 45-119 | 0.909 | 34 |  |

Surr: p-Terphenyl-d14 1.41 " 1.67 84.4 42-144

North Creek Analytical - Portland

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Crystal Burkholder For Lisa Domenighini, Project Manager

North Creek Analytical, Inc.  
Environmental Laboratory Network

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POPT1S603034



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541.383.9310 fax 541.382.7588

Hart Crowser  
Five Centerpointe Drive  
Lake Oswego, OR 97035

Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Levi Fernandez

Reported:  
08/23/02 13:54

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring - Quality Control

North Creek Analytical - Bothell

| Analyte | Result | Reporting<br>Limit | Units | Spike<br>Level | Source<br>Result | %REC<br>Limits | RPD | RPD<br>Limit | Notes |
|---------|--------|--------------------|-------|----------------|------------------|----------------|-----|--------------|-------|
|---------|--------|--------------------|-------|----------------|------------------|----------------|-----|--------------|-------|

Batch 2H20034 - EPA 3550B

|                            |       |                    |           |                    |       |                    |        |  |      |
|----------------------------|-------|--------------------|-----------|--------------------|-------|--------------------|--------|--|------|
| Matrix Spike (2H20034-MS1) |       | Source: P2H0488-05 |           | Prepared: 08/20/02 |       | Analyzed: 08/22/02 |        |  |      |
| Chrysene                   | 1.38  | 0.0500             | mg/kg dry | 0.386              | 3.72  | -606               | 29-139 |  | Q-02 |
| Fluorene                   | 0.719 | 0.0500             | "         | 0.386              | 0.267 | 117                | 36-135 |  |      |
| Indeno (1,2,3-cd) pyrene   | 1.05  | 0.0500             | "         | 0.386              | 1.88  | -215               | 23-144 |  | Q-02 |
| Surr: p-Terphenyl-d14      | 1.92  |                    | "         | 1.93               |       | 99.5               | 42-144 |  |      |

| Matrix Spike Dup (2H20034-MSD1) | Source: P2H0488-05 |        |           | Prepared: 08/20/02 |       | Analyzed: 08/22/02 |        |      |    |      |
|---------------------------------|--------------------|--------|-----------|--------------------|-------|--------------------|--------|------|----|------|
| Chrysene                        | 1.83               | 0.0500 | mg/kg dry | 0.385              | 3.72  | -491               | 29-139 | 28.0 | 37 | Q-02 |
| Fluorene                        | 0.778              | 0.0500 | "         | 0.385              | 0.267 | 133                | 36-135 | 7.88 | 38 |      |
| Indeno (1,2,3-cd) pyrene        | 1.16               | 0.0500 | "         | 0.385              | 1.88  | -187               | 23-144 | 9.95 | 53 | Q-02 |
| Surr: p-Terphenyl-d14           | 2.01               |        | "         | 1.93               |       | 104                | 42-144 |      |    |      |

Batch 2H22019 - EPA 3550B

| Blank (2H22019-BLK1)     |      |        | Prepared & Analyzed: 08/22/02 |      |     |        |
|--------------------------|------|--------|-------------------------------|------|-----|--------|
| Acenaphthene             | ND   | 0.0100 | mg/kg                         |      |     |        |
| Acenaphthylene           | ND   | 0.0100 | "                             |      |     |        |
| Anthracene               | ND   | 0.0100 | "                             |      |     |        |
| Benzo (a) anthracene     | ND   | 0.0100 | "                             |      |     |        |
| Benzo (a) pyrene         | ND   | 0.0100 | "                             |      |     |        |
| Benzo (b) fluoranthene   | ND   | 0.0100 | "                             |      |     |        |
| Benzo (ghi) perylene     | ND   | 0.0100 | "                             |      |     |        |
| Benzo (k) fluoranthene   | ND   | 0.0100 | "                             |      |     |        |
| Chrysene                 | ND   | 0.0100 | "                             |      |     |        |
| Dibenz (a,h) anthracene  | ND   | 0.0100 | "                             |      |     |        |
| Fluoranthene             | ND   | 0.0100 | "                             |      |     |        |
| Fluorene                 | ND   | 0.0100 | "                             |      |     |        |
| Indeno (1,2,3-cd) pyrene | ND   | 0.0100 | "                             |      |     |        |
| Naphthalene              | ND   | 0.0100 | "                             |      |     |        |
| Phenanthrene             | ND   | 0.0100 | "                             |      |     |        |
| Pyrene                   | ND   | 0.0100 | "                             |      |     |        |
| Surr: p-Terphenyl-d14    | 1.92 |        | "                             | 1.67 | 115 | 42-144 |

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Crystal Burkholder For Lisa Domenighini, Project Manager

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POPT1S603035



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Hart Crowser  
Five Centerpointe Drive  
Lake Oswego, OR 97035

Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Levi Fernandez

Reported:  
08/23/02 13:54

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring - Quality Control

North Creek Analytical - Bothell

| Analyte | Result | Reporting<br>Limit | Units | Spike<br>Level | Source<br>Result | %REC<br>Limits | RPD | RPD<br>Limit | Notes |
|---------|--------|--------------------|-------|----------------|------------------|----------------|-----|--------------|-------|
|---------|--------|--------------------|-------|----------------|------------------|----------------|-----|--------------|-------|

Batch 2H22019 - EPA 3550B

LCS (2H22019-BS1)

Prepared & Analyzed: 08/22/02

|                          |       |        |       |       |  |      |        |  |  |
|--------------------------|-------|--------|-------|-------|--|------|--------|--|--|
| Chrysene                 | 0.240 | 0.0100 | mg/kg | 0.333 |  | 72.1 | 60-117 |  |  |
| Fluorene                 | 0.304 | 0.0100 | "     | 0.333 |  | 91.3 | 61-120 |  |  |
| Indeno (1,2,3-cd) pyrene | 0.278 | 0.0100 | "     | 0.333 |  | 83.5 | 45-119 |  |  |
| Surr: p-Terphenyl-d14    | 1.68  |        | "     | 1.67  |  | 101  | 42-144 |  |  |

LCS Dup (2H22019-BS1)

Prepared & Analyzed: 08/22/02

|                          |       |        |       |       |  |      |        |      |    |
|--------------------------|-------|--------|-------|-------|--|------|--------|------|----|
| Chrysene                 | 0.232 | 0.0100 | mg/kg | 0.333 |  | 69.7 | 60-117 | 3.39 | 28 |
| Fluorene                 | 0.277 | 0.0100 | "     | 0.333 |  | 83.2 | 61-120 | 9.29 | 32 |
| Indeno (1,2,3-cd) pyrene | 0.237 | 0.0100 | "     | 0.333 |  | 71.2 | 45-119 | 15.9 | 34 |
| Surr: p-Terphenyl-d14    | 1.65  |        | "     | 1.67  |  | 98.8 | 42-144 |      |    |

Matrix Spike (2H22019-MS1)

Source: B2H0254-02

Prepared: 08/22/02 Analyzed: 08/23/02

|                          |       |        |           |       |       |      |        |  |      |
|--------------------------|-------|--------|-----------|-------|-------|------|--------|--|------|
| Chrysene                 | 0.633 | 0.0200 | mg/kg dry | 0.377 | 0.390 | 64.5 | 29-139 |  | Q-20 |
| Fluorene                 | 0.478 | 0.0200 | "         | 0.377 | ND    | 127  | 36-135 |  |      |
| Indeno (1,2,3-cd) pyrene | 0.310 | 0.0200 | "         | 0.377 | ND    | 82.2 | 23-144 |  | Q-20 |
| Surr: p-Terphenyl-d14    | 2.06  |        | "         | 1.88  |       | 110  | 42-144 |  | Q-20 |

Matrix Spike Dup (2H22019-MS1)

Source: B2H0254-02

Prepared: 08/22/02 Analyzed: 08/23/02

|                          |       |        |           |       |       |      |        |      |    |      |
|--------------------------|-------|--------|-----------|-------|-------|------|--------|------|----|------|
| Chrysene                 | 0.613 | 0.0200 | mg/kg dry | 0.377 | 0.390 | 59.2 | 29-139 | 3.21 | 37 | Q-20 |
| Fluorene                 | 0.428 | 0.0200 | "         | 0.377 | ND    | 114  | 36-135 | 11.0 | 38 | Q-20 |
| Indeno (1,2,3-cd) pyrene | 0.295 | 0.0200 | "         | 0.377 | ND    | 78.2 | 23-144 | 4.96 | 53 | Q-20 |
| Surr: p-Terphenyl-d14    | 1.87  |        | "         | 1.88  |       | 99.5 | 42-144 |      |    | Q-20 |

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Crystal Burkholder For Lisa Domenighini, Project Manager

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POPT1S603036



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Hart Crowser  
Five Centerpointe Drive  
Lake Oswego, OR 97035

Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Levi Fernandez

Reported:  
08/23/02 13:54

Physical Parameters by APHA/ASTM/EPA Methods - Quality Control

North Creek Analytical - Bothell

| Analyte | Result | Reporting<br>Limit | Units | Spike<br>Level | Source<br>Result | %REC | %REC<br>Limits | RPD | RPD<br>Limit | Notes |
|---------|--------|--------------------|-------|----------------|------------------|------|----------------|-----|--------------|-------|
|---------|--------|--------------------|-------|----------------|------------------|------|----------------|-----|--------------|-------|

Batch 2H20016 - Dry Weight

Blank (2H20016-BLK1)

Prepared: 08/20/02 Analyzed: 08/21/02

|            |      |      |   |
|------------|------|------|---|
| Dry Weight | 99.8 | 1.00 | % |
|------------|------|------|---|

Batch 2H22018 - Dry Weight

Blank (2H22018-BLK1)

Prepared: 08/22/02 Analyzed: 08/23/02

|            |     |      |   |
|------------|-----|------|---|
| Dry Weight | 100 | 1.00 | % |
|------------|-----|------|---|

North Creek Analytical - Portland

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Crystal Burkholder For Lisa Domenighini, Project Manager

North Creek Analytical, Inc.  
Environmental Laboratory Network

Page 13 of 14

POPT1S603037



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Hart Crowser  
Five Centerpointe Drive  
Lake Oswego, OR 97035

Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Levi Fernandez

Reported:  
08/23/02 13:54

### Notes and Definitions

- Q-02 The spike recovery for this QC sample is outside of NCA established control limits due to sample matrix interference.
- Q-20 The internal standard associated with this analyte was outside normal acceptance criteria.
- R-05 Reporting limits raised due to dilution necessary for analysis. Sample contains high levels of reported analyte, non-target analyte, and/or matrix interference.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis. MRLs are adjusted if %Solids are less than 50%.
- wet Sample results reported on a wet weight basis (as received)
- RPD Relative Percent Difference

North Creek Analytical - Portland

Crystal Burkholder For Lisa Domenighini, Project Manager

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Environmental Laboratory Network

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POPT1S603038

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## CHAIN OF CUSTODY REPORT

Work Order #: P240488

|   |  |                    |  |  |  |                           |  |                  |  |            |  |          |  |           |  |
|---|--|--------------------|--|--|--|---------------------------|--|------------------|--|------------|--|----------|--|-----------|--|
| CLIENT: <b>HAUGTROWER - PORTLAND</b>          |  | INVOICE TO:        |  | TURNAROUND REQUEST in Business Days*                           |  |                           |  |                  |  |            |  |          |  |           |  |
| REPORT TO: <b>LEVI FERNANDEZ</b>              |  |                    |  | Organic & Inorganic Analyses                                   |  |                           |  |                  |  |            |  |          |  |           |  |
| ADDRESS: <b>LAKE OSWEGO</b>                   |  |                    |  | 10 7 5 4 3 2 1 <1  |  |                           |  |                  |  |            |  |          |  |           |  |
| PHONE: <b>503 620 7284</b> FAX: <b>- 6918</b> |  | P.O. NUMBER:       |  | STD. Petroleum Hydrocarbon Analyses                            |  |                           |  |                  |  |            |  |          |  |           |  |
| PROJECT NAME: <b>T-1 SOUTH</b>                |  | REQUESTED ANALYSES |  | 5 4 3 2 1 <1   |  |                           |  |                  |  |            |  |          |  |           |  |
| PROJECT NUMBER: <b>15230-04</b>               |  |                    |  | STD. Please Specify  |  |                           |  |                  |  |            |  |          |  |           |  |
| SAMPLED BY: <b>KAK</b>                        |  |                    |  | OTHER  |  |                           |  |                  |  |            |  |          |  |           |  |
|   |  |                    |  | *Turnaround Request less than standard may incur Rush Charges. |  |                           |  |                  |  |            |  |          |  |           |  |
| CLIENT SAMPLE IDENTIFICATION                  |  | SAMPLING DATE/TIME |  | PAH 8270-SM  |  | TPH-DX                    |  | MATRIX (W. S. O) |  | # OF CONT. |  | COMMENTS |  | NCA WO ID |  |
| 1. SP1-A3                                     |  | 8/19               |  |  |  | X                         |  | S                |  | 2          |  |          |  |           |  |
| 2. SP2-A3                                     |  | 1                  |  |  |  | X                         |  | S                |  | 2          |  |          |  |           |  |
| 3. SP3-A3                                     |  |                    |  |  |  | X                         |  | S                |  | 2          |  |          |  |           |  |
| 4. SP4-A3                                     |  |                    |  |  |  | X                         |  | S                |  | 2          |  |          |  |           |  |
| 5. SP5-A3                                     |  | ✓                  |  | X  |  | X                         |  | S                |  | 2          |  |          |  |           |  |
| 6.  |  |                    |  |  |  |                           |  |                  |  |            |  |          |  |           |  |
| 7.  |  |                    |  |  |  |                           |  |                  |  |            |  |          |  |           |  |
| 8.  |  |                    |  |  |  |                           |  |                  |  |            |  |          |  |           |  |
| 9.  |  |                    |  |  |  |                           |  |                  |  |            |  |          |  |           |  |
| 10.   |  |                    |  |  |  |                           |  |                  |  |            |  |          |  |           |  |
| 11.   |  |                    |  |  |  |                           |  |                  |  |            |  |          |  |           |  |
| 12.   |  |                    |  |  |  |                           |  |                  |  |            |  |          |  |           |  |
| 13.   |  |                    |  |  |  |                           |  |                  |  |            |  |          |  |           |  |
| 14.   |  |                    |  |  |  |                           |  |                  |  |            |  |          |  |           |  |
| 15.   |  |                    |  |  |  |                           |  |                  |  |            |  |          |  |           |  |
| RELINQUISHED BY: <b>KEITH KNOX</b>            |  | DATE: <b>8/19</b>  |  | RECEIVED BY: <b>[Signature]</b>                                |  | DATE: <b>8/19/02</b>      |  |                  |  |            |  |          |  |           |  |
| PRINT NAME: <b>KEITH KNOX</b>                 |  | TIME: <b>1557</b>  |  | PRINT NAME: <b>[Signature]</b>                                 |  | TIME: <b>1557</b>         |  |                  |  |            |  |          |  |           |  |
| RELINQUISHED BY:                              |  | DATE:              |  | RECEIVED BY:   |  | DATE:                     |  |                  |  |            |  |          |  |           |  |
| PRINT NAME:                                   |  | TIME:              |  | PRINT NAME:  |  | TIME:                     |  |                  |  |            |  |          |  |           |  |
| FIRM: <b>HC</b>                               |  |                    |  | FIRM: <b>NGA</b>   |  |                           |  |                  |  |            |  |          |  |           |  |
| ADDITIONAL REMARKS:                           |  |                    |  | TEMP: <b>11.0</b>  |  | PAGE <b>3</b> OF <b>3</b> |  |                  |  |            |  |          |  |           |  |

POPT1S603039



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Hart Crowser  
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Lake Oswego, OR 97035

Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Levi Fernandez

Reported:  
08/23/02 14:55

### ANALYTICAL REPORT FOR SAMPLES

| Sample ID     | Laboratory ID | Matrix | Date Sampled   | Date Received  |
|---------------|---------------|--------|----------------|----------------|
| T1-3E (0-3)   | P2H0565-01    | Soil   | 08/21/02 12:00 | 08/21/02 16:36 |
| T1-3E (3-10)  | P2H0565-02    | Soil   | 08/21/02 12:00 | 08/21/02 16:36 |
| T1-3BN        | P2H0565-03    | Soil   | 08/21/02 12:00 | 08/21/02 16:36 |
| T1-3BS        | P2H0565-04    | Soil   | 08/21/02 12:00 | 08/21/02 16:36 |
| T1-3SE (0-3)  | P2H0565-05    | Soil   | 08/21/02 12:00 | 08/21/02 16:36 |
| T1-3SE (3-10) | P2H0565-06    | Soil   | 08/21/02 12:00 | 08/21/02 16:36 |
| T1-3W (0-3)   | P2H0565-07    | Soil   | 08/21/02 12:00 | 08/21/02 16:36 |
| T1-3W (3-10)  | P2H0565-08    | Soil   | 08/21/02 12:00 | 08/21/02 16:36 |

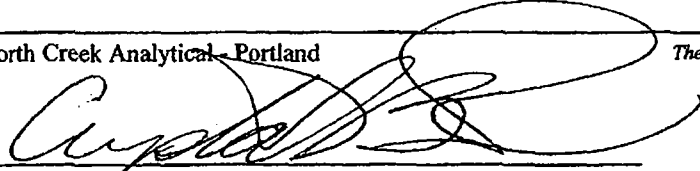
HART CROWSER, INC.

AUG 27 2002

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Crystal Burkholder For Lisa Domenighini, Project Manager

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POPT1S603040





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Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Levi Fernandez

Reported:  
08/23/02 14:55

**Diesel and Heavy Range Hydrocarbons per NWTPH-Dx Method**  
**North Creek Analytical - Portland**

| Analyte                                | Result | Reporting Limit | Units     | Dilution | Method   | Prepared                             | Analyzed | Batch   | Notes |
|--|--------|-----------------|-----------|----------|----------|--------------------------------------|----------|---------|-------|
| <b>T1-3E (0-3) (P2H0565-01) Soil</b>   |        |                 |           |          |          | Sampled: 08/21/02 Received: 08/21/02 |          |         |       |
| Diesel Range Organics                  | ND     | 25.0            | mg/kg dry | 1        | NWTPH-Dx | 08/22/02                             | 08/22/02 | 2080784 |       |
| Heavy Oil Range Hydrocarbons           | ND     | 50.0            | "         | "        | "        | "                                    | "        | "       |       |
| Surr: 1-Chlorooctadecane               | 80.9 % | 50-150          |           |          |          |                                      |          |         |       |
| <b>T1-3E (3-10) (P2H0565-02) Soil</b>  |        |                 |           |          |          | Sampled: 08/21/02 Received: 08/21/02 |          |         |       |
| Diesel Range Organics                  | ND     | 25.0            | mg/kg dry | 1        | NWTPH-Dx | 08/22/02                             | 08/22/02 | 2080784 |       |
| Heavy Oil Range Hydrocarbons           | ND     | 50.0            | "         | "        | "        | "                                    | "        | "       |       |
| Surr: 1-Chlorooctadecane               | 88.6 % | 50-150          |           |          |          |                                      |          |         |       |
| <b>T1-3BN (P2H0565-03) Soil</b>        |        |                 |           |          |          | Sampled: 08/21/02 Received: 08/21/02 |          |         |       |
| Diesel Range Organics                  | ND     | 25.0            | mg/kg dry | 1        | NWTPH-Dx | 08/22/02                             | 08/23/02 | 2080784 |       |
| Heavy Oil Range Hydrocarbons           | ND     | 50.0            | "         | "        | "        | "                                    | "        | "       |       |
| Surr: 1-Chlorooctadecane               | 79.0 % | 50-150          |           |          |          |                                      |          |         |       |
| <b>T1-3BS (P2H0565-04) Soil</b>        |        |                 |           |          |          | Sampled: 08/21/02 Received: 08/21/02 |          |         |       |
| Diesel Range Organics                  | ND     | 25.0            | mg/kg dry | 1        | NWTPH-Dx | 08/22/02                             | 08/23/02 | 2080784 |       |
| Heavy Oil Range Hydrocarbons           | ND     | 50.0            | "         | "        | "        | "                                    | "        | "       |       |
| Surr: 1-Chlorooctadecane               | 85.8 % | 50-150          |           |          |          |                                      |          |         |       |
| <b>T1-3SE (0-3) (P2H0565-05) Soil</b>  |        |                 |           |          |          | Sampled: 08/21/02 Received: 08/21/02 |          |         |       |
| Diesel Range Organics                  | ND     | 25.0            | mg/kg dry | 1        | NWTPH-Dx | 08/22/02                             | 08/23/02 | 2080784 |       |
| Heavy Oil Range Hydrocarbons           | ND     | 50.0            | "         | "        | "        | "                                    | "        | "       |       |
| Surr: 1-Chlorooctadecane               | 82.2 % | 50-150          |           |          |          |                                      |          |         |       |
| <b>T1-3SE (3-10) (P2H0565-06) Soil</b> |        |                 |           |          |          | Sampled: 08/21/02 Received: 08/21/02 |          |         |       |
| Diesel Range Organics                  | ND     | 25.0            | mg/kg dry | 1        | NWTPH-Dx | 08/22/02                             | 08/23/02 | 2080784 |       |
| Heavy Oil Range Hydrocarbons           | ND     | 50.0            | "         | "        | "        | "                                    | "        | "       |       |
| Surr: 1-Chlorooctadecane               | 78.7 % | 50-150          |           |          |          |                                      |          |         |       |

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Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Levi Fernandez

Reported:  
08/23/02 14:55

**Diesel and Heavy Range Hydrocarbons per NWTPH-Dx Method**  
**North Creek Analytical - Portland**

| Analyte                               | Result | Reporting<br>Limit | Units     | Dilution | Method   | Prepared                             | Analyzed | Batch   | Notes |
|---------------------------------------|--------|--------------------|-----------|----------|----------|--------------------------------------|----------|---------|-------|
| <b>T1-3W (0-3) (P2H0565-07) Soil</b>  |        |                    |           |          |          | Sampled: 08/21/02 Received: 08/21/02 |          |         |       |
| Diesel Range Organics                 | ND     | 25.0               | mg/kg dry | 1        | NWTPH-Dx | 08/22/02                             | 08/23/02 | 2080784 |       |
| Heavy Oil Range Hydrocarbons          | ND     | 50.0               | "         | "        | "        | "                                    | "        | "       |       |
| Surr: 1-Chlorooctadecane              | 83.0 % | 50-150             |           |          |          |                                      |          |         |       |
| <b>T1-3W (3-10) (P2H0565-08) Soil</b> |        |                    |           |          |          | Sampled: 08/21/02 Received: 08/21/02 |          |         |       |
| Diesel Range Organics                 | 83.1   | 25.0               | mg/kg dry | 1        | NWTPH-Dx | 08/22/02                             | 08/23/02 | 2080784 | D-15  |
| Heavy Oil Range Hydrocarbons          | 349    | 50.0               | "         | "        | "        | "                                    | "        | "       |       |
| Surr: 1-Chlorooctadecane              | 80.1 % | 50-150             |           |          |          |                                      |          |         |       |

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Project Number: 15230-04  
Project Manager: Levi Fernandez

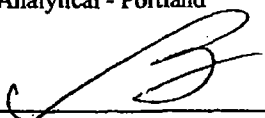
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08/23/02 14:55

**Percent Dry Weight (Solids) per Standard Methods**  
**North Creek Analytical - Portland**

| Analyte                                | Result | Reporting<br>Limit | Units       | Dilution | Method  | Prepared                             | Analyzed | Batch   | Notes |
|--|--------|--------------------|-------------|----------|---------|--------------------------------------|----------|---------|-------|
| <b>T1-3E (0-3) (P2H0565-01) Soil</b>   |        |                    |             |          |         | Sampled: 08/21/02 Received: 08/21/02 |          |         |       |
| % Solids                               | 87.5   | 1.00               | % by Weight | 1        | NCA SOP | 08/22/02                             | 08/23/02 | 2080793 |       |
| <b>T1-3E (3-10) (P2H0565-02) Soil</b>  |        |                    |             |          |         | Sampled: 08/21/02 Received: 08/21/02 |          |         |       |
| % Solids                               | 91.1   | 1.00               | % by Weight | 1        | NCA SOP | 08/22/02                             | 08/23/02 | 2080793 |       |
| <b>T1-3BN (P2H0565-03) Soil</b>        |        |                    |             |          |         | Sampled: 08/21/02 Received: 08/21/02 |          |         |       |
| % Solids                               | 92.3   | 1.00               | % by Weight | 1        | NCA SOP | 08/22/02                             | 08/23/02 | 2080793 |       |
| <b>T1-3BS (P2H0565-04) Soil</b>        |        |                    |             |          |         | Sampled: 08/21/02 Received: 08/21/02 |          |         |       |
| % Solids                               | 92.3   | 1.00               | % by Weight | 1        | NCA SOP | 08/22/02                             | 08/23/02 | 2080793 |       |
| <b>T1-3SE (0-3) (P2H0565-05) Soil</b>  |        |                    |             |          |         | Sampled: 08/21/02 Received: 08/21/02 |          |         |       |
| % Solids                               | 92.7   | 1.00               | % by Weight | 1        | NCA SOP | 08/22/02                             | 08/23/02 | 2080793 |       |
| <b>T1-3SE (3-10) (P2H0565-06) Soil</b> |        |                    |             |          |         | Sampled: 08/21/02 Received: 08/21/02 |          |         |       |
| % Solids                               | 83.6   | 1.00               | % by Weight | 1        | NCA SOP | 08/22/02                             | 08/23/02 | 2080793 |       |
| <b>T1-3W (0-3) (P2H0565-07) Soil</b>   |        |                    |             |          |         | Sampled: 08/21/02 Received: 08/21/02 |          |         |       |
| % Solids                               | 97.0   | 1.00               | % by Weight | 1        | NCA SOP | 08/22/02                             | 08/23/02 | 2080793 |       |
| <b>T1-3W (3-10) (P2H0565-08) Soil</b>  |        |                    |             |          |         | Sampled: 08/21/02 Received: 08/21/02 |          |         |       |
| % Solids                               | 72.9   | 1.00               | % by Weight | 1        | NCA SOP | 08/22/02                             | 08/23/02 | 2080793 |       |

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Hart Crowser  
Five Centerpointe Drive  
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Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Levi Fernandez

Reported:  
08/23/02 14:55

**Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring**  
**North Creek Analytical - Bothell**

| Analyte                              | Result | Reporting<br>Limit | Units     | Dilution | Method       | Prepared                             | Analyzed | Batch   | Notes |
|--------------------------------------|--------|--------------------|-----------|----------|--------------|--------------------------------------|----------|---------|-------|
| <b>T1-3E (0-3) (P2H0565-01) Soil</b> |        |                    |           |          |              | Sampled: 08/21/02 Received: 08/21/02 |          |         |       |
| Acenaphthene                         | ND     | 0.0100             | mg/kg dry | 1        | EPA 8270 Mod | 08/22/02                             | 08/23/02 | 2H22019 |       |
| Acenaphthylene                       | ND     | 0.0100             | "         | "        | "            | "                                    | "        | "       |       |
| Anthracene                           | ND     | 0.0100             | "         | "        | "            | "                                    | "        | "       |       |
| Benzo (a) anthracene                 | 0.0249 | 0.0100             | "         | "        | "            | "                                    | "        | "       |       |
| Benzo (a) pyrene                     | 0.0257 | 0.0100             | "         | "        | "            | "                                    | "        | "       |       |
| Benzo (b) fluoranthene               | 0.0159 | 0.0100             | "         | "        | "            | "                                    | "        | "       |       |
| Benzo (ghi) perylene                 | 0.0136 | 0.0100             | "         | "        | "            | "                                    | "        | "       |       |
| Benzo (k) fluoranthene               | 0.0234 | 0.0100             | "         | "        | "            | "                                    | "        | "       |       |
| Chrysene                             | 0.0226 | 0.0100             | "         | "        | "            | "                                    | "        | "       |       |
| Dibenz (a,h) anthracene              | ND     | 0.0100             | "         | "        | "            | "                                    | "        | "       |       |
| Fluoranthene                         | 0.0294 | 0.0100             | "         | "        | "            | "                                    | "        | "       |       |
| Fluorene                             | ND     | 0.0100             | "         | "        | "            | "                                    | "        | "       |       |
| Indeno (1,2,3-cd) pyrene             | 0.0128 | 0.0100             | "         | "        | "            | "                                    | "        | "       |       |
| Naphthalene                          | ND     | 0.0100             | "         | "        | "            | "                                    | "        | "       |       |
| Phenanthrene                         | 0.0159 | 0.0100             | "         | "        | "            | "                                    | "        | "       |       |
| Pyrene                               | 0.0430 | 0.0100             | "         | "        | "            | "                                    | "        | "       |       |
| Surr: p-Terphenyl-d14                | 114 %  | 42-144             |           |          |              |                                      |          |         |       |

|                                       |        |        |           |   |              |                                      |          |         |  |
|---------------------------------------|--------|--------|-----------|---|--------------|--------------------------------------|----------|---------|--|
| <b>T1-3E (3-10) (P2H0565-02) Soil</b> |        |        |           |   |              | Sampled: 08/21/02 Received: 08/21/02 |          |         |  |
| Acenaphthene                          | 0.0219 | 0.0100 | mg/kg dry | 1 | EPA 8270 Mod | 08/22/02                             | 08/23/02 | 2H22019 |  |
| Acenaphthylene                        | 0.0306 | 0.0100 | "         | " | "            | "                                    | "        | "       |  |
| Anthracene                            | 0.0583 | 0.0100 | "         | " | "            | "                                    | "        | "       |  |
| Benzo (a) anthracene                  | 0.151  | 0.0100 | "         | " | "            | "                                    | "        | "       |  |
| Benzo (a) pyrene                      | 0.166  | 0.0100 | "         | " | "            | "                                    | "        | "       |  |
| Benzo (b) fluoranthene                | 0.0948 | 0.0100 | "         | " | "            | "                                    | "        | "       |  |
| Benzo (ghi) perylene                  | 0.101  | 0.0100 | "         | " | "            | "                                    | "        | "       |  |
| Benzo (k) fluoranthene                | 0.111  | 0.0100 | "         | " | "            | "                                    | "        | "       |  |
| Chrysene                              | 0.155  | 0.0100 | "         | " | "            | "                                    | "        | "       |  |
| Dibenz (a,h) anthracene               | 0.0306 | 0.0100 | "         | " | "            | "                                    | "        | "       |  |
| Fluoranthene                          | 0.231  | 0.0100 | "         | " | "            | "                                    | "        | "       |  |
| Fluorene                              | 0.0306 | 0.0100 | "         | " | "            | "                                    | "        | "       |  |
| Indeno (1,2,3-cd) pyrene              | 0.0773 | 0.0100 | "         | " | "            | "                                    | "        | "       |  |
| Naphthalene                           | ND     | 0.0100 | "         | " | "            | "                                    | "        | "       |  |
| Phenanthrene                          | 0.232  | 0.0100 | "         | " | "            | "                                    | "        | "       |  |
| Pyrene                                | 0.435  | 0.0100 | "         | " | "            | "                                    | "        | "       |  |
| Surr: p-Terphenyl-d14                 | 114 %  | 42-144 |           |   |              |                                      |          |         |  |

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Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Levi Fernandez

Reported:  
08/23/02 14:55

**Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring**  
**North Creek Analytical - Bothell**

| Analyte                               | Result | Reporting<br>Limit | Units     | Dilution | Method       | Prepared                             | Analyzed | Batch   | Notes |
|---------------------------------------|--------|--------------------|-----------|----------|--------------|--------------------------------------|----------|---------|-------|
| <b>T1-3SE (0-3) (P2H0565-05) Soil</b> |        |                    |           |          |              | Sampled: 08/21/02 Received: 08/21/02 |          |         |       |
| Acenaphthene                          | 0.0273 | 0.0100             | mg/kg dry | 1        | EPA 8270 Mod | 08/22/02                             | 08/23/02 | 2H22019 |       |
| Acenaphthylene                        | 0.0345 | 0.0100             | "         | "        | "            | "                                    | "        | "       |       |
| Anthracene                            | 0.0978 | 0.0100             | "         | "        | "            | "                                    | "        | "       |       |
| Benzo (a) anthracene                  | 0.157  | 0.0100             | "         | "        | "            | "                                    | "        | "       |       |
| Benzo (a) pyrene                      | 0.160  | 0.0100             | "         | "        | "            | "                                    | "        | "       |       |
| Benzo (b) fluoranthene                | 0.105  | 0.0100             | "         | "        | "            | "                                    | "        | "       |       |
| Benzo (ghi) perylene                  | 0.115  | 0.0100             | "         | "        | "            | "                                    | "        | "       |       |
| Benzo (k) fluoranthene                | 0.129  | 0.0100             | "         | "        | "            | "                                    | "        | "       |       |
| Chrysene                              | 0.171  | 0.0100             | "         | "        | "            | "                                    | "        | "       |       |
| Dibenz (a,h) anthracene               | 0.0345 | 0.0100             | "         | "        | "            | "                                    | "        | "       |       |
| Fluoranthene                          | 0.309  | 0.0100             | "         | "        | "            | "                                    | "        | "       |       |
| Fluorene                              | 0.0324 | 0.0100             | "         | "        | "            | "                                    | "        | "       |       |
| Indeno (1,2,3-cd) pyrene              | 0.0856 | 0.0100             | "         | "        | "            | "                                    | "        | "       |       |
| Naphthalene                           | 0.0129 | 0.0100             | "         | "        | "            | "                                    | "        | "       |       |
| Phenanthrene                          | 0.302  | 0.0100             | "         | "        | "            | "                                    | "        | "       |       |
| Pyrene                                | 0.470  | 0.0100             | "         | "        | "            | "                                    | "        | "       |       |
| Surr: p-Terphenyl-d14                 | 118 %  | 42-144             |           |          |              |                                      |          |         |       |

|  |        |        |           |   |              |                                      |          |         |  |
|--|--------|--------|-----------|---|--------------|--------------------------------------|----------|---------|--|
| <b>T1-3SE (3-10) (P2H0565-06) Soil</b> |        |        |           |   |              | Sampled: 08/21/02 Received: 08/21/02 |          |         |  |
| Acenaphthene                           | ND     | 0.0100 | mg/kg dry | 1 | EPA 8270 Mod | 08/22/02                             | 08/23/02 | 2H22019 |  |
| Acenaphthylene                         | 0.0111 | 0.0100 | "         | " | "            | "                                    | "        | "       |  |
| Anthracene                             | 0.0158 | 0.0100 | "         | " | "            | "                                    | "        | "       |  |
| Benzo (a) anthracene                   | 0.0364 | 0.0100 | "         | " | "            | "                                    | "        | "       |  |
| Benzo (a) pyrene                       | 0.0538 | 0.0100 | "         | " | "            | "                                    | "        | "       |  |
| Benzo (b) fluoranthene                 | 0.0396 | 0.0100 | "         | " | "            | "                                    | "        | "       |  |
| Benzo (ghi) perylene                   | 0.0499 | 0.0100 | "         | " | "            | "                                    | "        | "       |  |
| Benzo (k) fluoranthene                 | 0.0364 | 0.0100 | "         | " | "            | "                                    | "        | "       |  |
| Chrysene                               | 0.0404 | 0.0100 | "         | " | "            | "                                    | "        | "       |  |
| Dibenz (a,h) anthracene                | 0.0150 | 0.0100 | "         | " | "            | "                                    | "        | "       |  |
| Fluoranthene                           | 0.0855 | 0.0100 | "         | " | "            | "                                    | "        | "       |  |
| Fluorene                               | 0.0174 | 0.0100 | "         | " | "            | "                                    | "        | "       |  |
| Indeno (1,2,3-cd) pyrene               | 0.0348 | 0.0100 | "         | " | "            | "                                    | "        | "       |  |
| Naphthalene                            | 0.0166 | 0.0100 | "         | " | "            | "                                    | "        | "       |  |
| Phenanthrene                           | 0.0594 | 0.0100 | "         | " | "            | "                                    | "        | "       |  |
| Pyrene                                 | 0.116  | 0.0100 | "         | " | "            | "                                    | "        | "       |  |
| Surr: p-Terphenyl-d14                  | 120 %  | 42-144 |           |   |              |                                      |          |         |  |

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Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Levi Fernandez


Reported:  
08/23/02 14:55

**Physical Parameters by APHA/ASTM/EPA Methods**  
**North Creek Analytical - Bothell**

| Analyte                                | Result | Reporting<br>Limit | Units | Dilution | Method      | Prepared                             | Analyzed | Batch   | Notes |
|--|--------|--------------------|-------|----------|-------------|--------------------------------------|----------|---------|-------|
| <b>T1-3E (0-3) (P2H0565-01) Soil</b>   |        |                    |       |          |             | Sampled: 08/21/02 Received: 08/21/02 |          |         |       |
| Dry Weight                             | 88.6   | 1.00               | %     | 1        | BSOPSPL003R | 08/22/02                             | 08/23/02 | 2H22018 |       |
| <b>T1-3E (3-10) (P2H0565-02) Soil</b>  |        |                    |       |          |             | Sampled: 08/21/02 Received: 08/21/02 |          |         |       |
| Dry Weight                             | 90.8   | 1.00               | %     | 1        | BSOPSPL003R | 08/22/02                             | 08/23/02 | 2H22018 |       |
| <b>T1-3SE (0-3) (P2H0565-05) Soil</b>  |        |                    |       |          |             | Sampled: 08/21/02 Received: 08/21/02 |          |         |       |
| Dry Weight                             | 92.1   | 1.00               | %     | 1        | BSOPSPL003R | 08/22/02                             | 08/23/02 | 2H22018 |       |
| <b>T1-3SE (3-10) (P2H0565-06) Soil</b> |        |                    |       |          |             | Sampled: 08/21/02 Received: 08/21/02 |          |         |       |
| Dry Weight                             | 84.2   | 1.00               | %     | 1        | BSOPSPL003R | 08/22/02                             | 08/23/02 | 2H22018 |       |

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Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Levi Fernandez

Reported:  
08/23/02 14:55

**Diesel and Heavy Range Hydrocarbons per NWFBH-DX Method - Quality Control**

**North Creek Analytical - Portland**

| Analyte                               | Result | Reporting Limit | Units     | Spike Level                           | Source Result | %REC                                  | %REC Limits | RPD | RPD Limit | Notes |
|---------------------------------------|--------|-----------------|-----------|---------------------------------------|---------------|---------------------------------------|-------------|-----|-----------|-------|
| <b>Batch 2080784 - EPA 3550 Fuels</b> |        |                 |           |                                       |               |                                       |             |     |           |       |
| <b>Blank (2080784-BLK1)</b>           |        |                 |           | Prepared: 08/22/02 Analyzed: 08/23/02 |               |                                       |             |     |           |       |
| Diesel Range Organics                 | ND     | 25.0            | mg/kg     |                                       |               |                                       |             |     |           |       |
| Heavy Oil Range Hydrocarbons          | ND     | 50.0            | "         |                                       |               |                                       |             |     |           |       |
| Surr: 1-Chlorooctadecane              | 4.04   |                 | "         | 4.80                                  |               | 84.2                                  | 50-150      |     |           |       |
| <b>LCS (2080784-BS1)</b>              |        |                 |           | Prepared: 08/22/02 Analyzed: 08/23/02 |               |                                       |             |     |           |       |
| Diesel Range Organics                 | 102    | 25.0            | mg/kg     | 125                                   |               | 81.6                                  | 50-150      |     |           |       |
| Heavy Oil Range Hydrocarbons          | 70.7   | 50.0            | "         | 75.0                                  |               | 94.3                                  | 50-150      |     |           |       |
| Surr: 1-Chlorooctadecane              | 3.70   |                 | "         | 4.80                                  |               | 77.1                                  | 50-150      |     |           |       |
| <b>Duplicate (2080784-DUP1)</b>       |        |                 |           | Source: P2H0565-01                    |               | Prepared: 08/22/02 Analyzed: 08/23/02 |             |     |           |       |
| Diesel Range Organics                 | ND     | 25.0            | mg/kg dry |                                       | ND            |                                       |             |     | 50        |       |
| Heavy Oil Range Hydrocarbons          | ND     | 50.0            | "         |                                       | ND            |                                       |             |     | 50        |       |
| Surr: 1-Chlorooctadecane              | 4.48   |                 | "         | 5.49                                  |               | 81.6                                  | 50-150      |     |           |       |
| <b>Duplicate (2080784-DUP2)</b>       |        |                 |           | Source: P2H0565-02                    |               | Prepared: 08/22/02 Analyzed: 08/23/02 |             |     |           |       |
| Diesel Range Organics                 | ND     | 25.0            | mg/kg dry |                                       | ND            |                                       |             |     | 50        |       |
| Heavy Oil Range Hydrocarbons          | ND     | 50.0            | "         |                                       | ND            |                                       |             |     | 50        |       |
| Surr: 1-Chlorooctadecane              | 4.39   |                 | "         | 5.37                                  |               | 83.3                                  | 50-150      |     |           |       |

North Creek Analytical - Portland

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Crystal Burkholder For Lisa Domenighini, Project Manager

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POPT1S603047



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Hart Crowser  
Five Centerpointe Drive  
Lake Oswego, OR 97035

Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Levi Fernandez

Reported:  
08/23/02 14:55

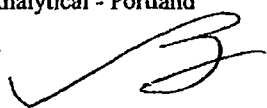
Percent Dry Weight (Solids) per Standard Methods - Quality Control

**North Creek Analytical - Portland**

| Analyte                           | Result | Reporting<br>Limit        | Units | Spike<br>Level | Source<br>Result                             | %REC | %REC<br>Limits | RPD   | RPD<br>Limit | Notes |
|-----------------------------------|--------|---------------------------|-------|----------------|--|------|----------------|-------|--------------|-------|
| <b>Batch 2080793 - Dry Weight</b> |        |                           |       |                |  |      |                |       |              |       |
| <b>Duplicate (2080793-DUP1)</b>   |        | <b>Source: P2H0564-01</b> |       |                | <b>Prepared: 08/22/02 Analyzed: 08/23/02</b> |      |                |       |              |       |
| % Solids                          | 78.4   | 1.00 % by Weight          |       |                | 76.0   |      |                | 3.11  | 20           |       |
| <b>Duplicate (2080793-DUP2)</b>   |        | <b>Source: P2H0565-01</b> |       |                | <b>Prepared: 08/22/02 Analyzed: 08/23/02</b> |      |                |       |              |       |
| % Solids                          | 88.0   | 1.00 % by Weight          |       |                | 87.5   |      |                | 0.570 | 20           |       |

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Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Levi Fernandez

Reported:  
08/23/02 14:55

Polyuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring - Quality Control

### North Creek Analytical - Bothell

| Analyte | Result | Reporting<br>Limit | Units | Spike<br>Level | Source<br>Result | %REC | %REC<br>Limits | RPD | RPD<br>Limit | Notes |
|---------|--------|--------------------|-------|----------------|------------------|------|----------------|-----|--------------|-------|
|---------|--------|--------------------|-------|----------------|------------------|------|----------------|-----|--------------|-------|

#### Batch 2H22019 - EPA 3550B

##### Blank (2H22019-BLK1)

Prepared & Analyzed: 08/22/02

|                          |    |        |       |
|--------------------------|----|--------|-------|
| Acenaphthene             | ND | 0.0100 | mg/kg |
| Acenaphthylene           | ND | 0.0100 | "     |
| Anthracene               | ND | 0.0100 | "     |
| Benzo (a) anthracene     | ND | 0.0100 | "     |
| Benzo (a) pyrene         | ND | 0.0100 | "     |
| Benzo (b) fluoranthene   | ND | 0.0100 | "     |
| Benzo (ghi) perylene     | ND | 0.0100 | "     |
| Benzo (k) fluoranthene   | ND | 0.0100 | "     |
| Chrysene                 | ND | 0.0100 | "     |
| Dibenz (a,h) anthracene  | ND | 0.0100 | "     |
| Fluoranthene             | ND | 0.0100 | "     |
| Fluorene                 | ND | 0.0100 | "     |
| Indeno (1,2,3-cd) pyrene | ND | 0.0100 | "     |
| Naphthalene              | ND | 0.0100 | "     |
| Phenanthrene             | ND | 0.0100 | "     |
| Pyrene                   | ND | 0.0100 | "     |

Surr: p-Terphenyl-d14 1.92 " 1.67 115 42-144

##### LCS (2H22019-BS1)

Prepared & Analyzed: 08/22/02

|                          |       |        |       |       |      |        |
|--------------------------|-------|--------|-------|-------|------|--------|
| Chrysene                 | 0.240 | 0.0100 | mg/kg | 0.333 | 72.1 | 60-117 |
| Fluorene                 | 0.304 | 0.0100 | "     | 0.333 | 91.3 | 61-120 |
| Indeno (1,2,3-cd) pyrene | 0.278 | 0.0100 | "     | 0.333 | 83.5 | 45-119 |

Surr: p-Terphenyl-d14 1.68 " 1.67 101 42-144

##### LCS Dup (2H22019-BS1)

Prepared & Analyzed: 08/22/02

|                          |       |        |       |       |      |        |      |    |
|--------------------------|-------|--------|-------|-------|------|--------|------|----|
| Chrysene                 | 0.232 | 0.0100 | mg/kg | 0.333 | 69.7 | 60-117 | 3.39 | 28 |
| Fluorene                 | 0.277 | 0.0100 | "     | 0.333 | 83.2 | 61-120 | 9.29 | 32 |
| Indeno (1,2,3-cd) pyrene | 0.237 | 0.0100 | "     | 0.333 | 71.2 | 45-119 | 15.9 | 34 |

Surr: p-Terphenyl-d14 1.65 " 1.67 98.8 42-144

North Creek Analytical - Portland

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POPT1S603049



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Hart Crowser  
Five Centerpointe Drive  
Lake Oswego, OR 97035

Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Levi Fernandez

Reported:  
08/23/02 14:55

**Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring - Quality Control**

**North Creek Analytical - Bothell**

| Analyte                                | Result | Reporting<br>Limit        | Units     | Spike<br>Level            | Source<br>Result | %REC                      | %REC<br>Limits | RPD  | RPD<br>Limit | Notes |
|--|--------|---------------------------|-----------|---------------------------|------------------|---------------------------|----------------|------|--------------|-------|
| <b>Batch 2H22019 - EPA 3550B</b>       |        |                           |           |                           |                  |                           |                |      |              |       |
| <b>Matrix Spike (2H22019-MS1)</b>      |        | <b>Source: B2H0254-02</b> |           | <b>Prepared: 08/22/02</b> |                  | <b>Analyzed: 08/23/02</b> |                |      |              |       |
| Chrysene                               | 0.633  | 0.0200                    | mg/kg dry | 0.377                     | 0.390            | 64.5                      | 29-139         |      |              | Q-20  |
| Fluorene                               | 0.478  | 0.0200                    | "         | 0.377                     | ND               | 127                       | 36-135         |      |              |       |
| Indeno (1,2,3-cd) pyrene               | 0.310  | 0.0200                    | "         | 0.377                     | ND               | 82.2                      | 23-144         |      |              | Q-20  |
| Surr: p-Terphenyl-d14                  | 2.06   |                           | "         | 1.88                      |                  | 110                       | 42-144         |      |              | Q-20  |
| <b>Matrix Spike Dup (2H22019-MSD1)</b> |        | <b>Source: B2H0254-02</b> |           | <b>Prepared: 08/22/02</b> |                  | <b>Analyzed: 08/23/02</b> |                |      |              |       |
| Chrysene                               | 0.613  | 0.0200                    | mg/kg dry | 0.377                     | 0.390            | 59.2                      | 29-139         | 3.21 | 37           | Q-20  |
| Fluorene                               | 0.428  | 0.0200                    | "         | 0.377                     | ND               | 114                       | 36-135         | 11.0 | 38           | Q-20  |
| Indeno (1,2,3-cd) pyrene               | 0.295  | 0.0200                    | "         | 0.377                     | ND               | 78.2                      | 23-144         | 4.96 | 53           | Q-20  |
| Surr: p-Terphenyl-d14                  | 1.87   |                           | "         | 1.88                      |                  | 99.5                      | 42-144         |      |              | Q-20  |

North Creek Analytical - Portland

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Hart Crowser  
Five Centerpointe Drive  
Lake Oswego, OR 97035

Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Levi Fernandez

Reported:  
08/23/02 14:55

Physical Parameters by APHA/AS/DM/EE/4 Methods Quality Control

### North Creek Analytical - Bothell

| Analyte | Result | Reporting<br>Limit | Units | Spike<br>Level | Source<br>Result | %REC | %REC<br>Limits | RPD | RPD<br>Limit | Notes |
|---------|--------|--------------------|-------|----------------|------------------|------|----------------|-----|--------------|-------|
|---------|--------|--------------------|-------|----------------|------------------|------|----------------|-----|--------------|-------|

#### Batch 2H22018 - Dry Weight


Blank (2H22018-BLK1)

Prepared: 08/22/02 Analyzed: 08/23/02

|            |     |      |   |  |  |  |  |  |  |  |
|------------|-----|------|---|--|--|--|--|--|--|--|
| Dry Weight | 100 | 1.00 | % |  |  |  |  |  |  |  |
|------------|-----|------|---|--|--|--|--|--|--|--|

North Creek Analytical - Portland

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Hart Crowser  
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Lake Oswego, OR 97035

Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Levi Fernandez

Reported:  
08/23/02 14:55

#### Notes and Definitions

D-15 Detected hydrocarbons have non-petroleum peaks or elution pattern that suggests the presence of biogenic interference.

Q-20 The internal standard associated with this analyte was outside normal acceptance criteria.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported


dry Sample results reported on a dry weight basis. MRLs are adjusted if %Solids are less than 50%.

wet Sample results reported on a wet weight basis (as received)

RPD Relative Percent Difference

North Creek Analytical - Portland

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Crystal Burkholder For Lisa Domenighini, Project Manager

North Creek Analytical, Inc.  
Environmental Laboratory Network

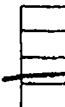
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POPT1S603052



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## CHAIN OF CUSTODY REPORT

Work Order #: **P2H0565**

|  |                    |                      |                   |   |                  |                      |                   |
|--|--------------------|----------------------|-------------------|---|------------------|----------------------|-------------------|
| CLIENT: <b>HART CROWSON</b>                |                    | INVOICE TO:          |                   | <b>TURNAROUND REQUEST in Business Days*</b><br>Organic & Inorganic Analyses<br><div style="display: flex; justify-content: space-around; border: 1px solid black; padding: 2px;"> <span>10</span><span>7</span><span>5</span><span>4</span><span>3</span><span>2</span><span>1</span><span>&lt;1</span> </div> STD. Petroleum Hydrocarbon Analyses<br><div style="display: flex; justify-content: space-around; border: 1px solid black; padding: 2px;"> <span>5</span><span>4</span><span>3</span><span>2</span><span>1</span><span>&lt;1</span> </div> STD. <span style="border: 1px solid black; padding: 2px;">OTHER</span> Please Specify<br><small>*Turnaround Request less than standard may incur Rush Charges.</small> |                  |                      |                   |
| REPORT TO: <b>LEVI FERNANDEZ</b>           |                    | P.O. NUMBER:         |                   |   |                  |                      |                   |
| ADDRESS: <b>HART CROWSON - LAKE OSWEGO</b> |                    |                      |                   |   |                  |                      |                   |
| PHONE: <b>503 620-7284</b> FAX:            |                    |                      |                   |   |                  |                      |                   |
| PROJECT NAME: <b>15230-04</b>              |                    | REQUESTED ANALYSES   |                   |   |                  |                      |                   |
| PROJECT NUMBER: <b>TERMINAL 2 Sam</b>      |                    |                      |                   |   |                  |                      |                   |
| SAMPLED BY: <b>KETH KROEBER</b>            |                    |                      |                   |   |                  |                      |                   |
| CLIENT SAMPLE IDENTIFICATION               | SAMPLING DATE/TIME |                      |                   |   |                  |                      |                   |
| 1. <b>T1-3E(0.3)</b>                       | <b>8/21</b>        | <b>X</b>             | <b>X</b>          |   |                  |                      |                   |
| 2. <b>T1-3E(3-10)</b>                      |                    | <b>X</b>             | <b>X</b>          |   |                  |                      |                   |
| 3. <b>T1-3BN</b>                           |                    |                      | <b>X</b>          |   |                  |                      |                   |
| 4. <b>T1-3BS</b>                           |                    |                      | <b>X</b>          |   |                  |                      |                   |
| 5. <b>T1-3SE(0.3)</b>                      |                    | <b>X</b>             | <b>X</b>          |   |                  |                      |                   |
| 6. <b>T1-3SE(3-10)</b>                     |                    | <b>X</b>             | <b>X</b>          |   |                  |                      |                   |
| 7. <b>T1-3W(0.3)</b>                       |                    |                      | <b>X</b>          |   |                  |                      |                   |
| 8. <b>T1-3W(3-10)</b>                      |                    |                      | <b>X</b>          |   |                  |                      |                   |
| 9.   |                    |                      |                   |   |                  |                      |                   |
| 10.  |                    |                      |                   |   |                  |                      |                   |
| 11.  |                    |                      |                   |   |                  |                      |                   |
| 12.  |                    |                      |                   |   |                  |                      |                   |
| 13.  |                    |                      |                   |   |                  |                      |                   |
| 14.  |                    |                      |                   |   |                  |                      |                   |
| 15.  |                    |                      |                   |   |                  |                      |                   |
| RELINQUISHED BY: <b>KETH KROEBER</b>       | FIRM: <b>HC</b>    | DATE: <b>8/21/02</b> | TIME: <b>1636</b> | RECEIVED BY: <b>[Signature]</b>   | FIRM: <b>NCA</b> | DATE: <b>8-21-02</b> | TIME: <b>1636</b> |
| RELINQUISHED BY:                           | FIRM:              | DATE:                | TIME:             | RECEIVED BY:  | FIRM:            | DATE:                | TIME:             |
| PRINT NAME:                                |                    |                      |                   | PRINT NAME:   |                  |                      |                   |
| ADDITIONAL REMARKS:                        |                    |                      |                   | <b>at client 3P</b> <b>TEMP: 10.0</b>   |                  |                      |                   |
| COC REV 3/99                               |                    |                      |                   | PAGE 01   |                  |                      |                   |

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Lake Oswego, OR 97035

Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Levi Fernandes

Reported:  
08/23/02 17:29

### ANALYTICAL REPORT FOR SAMPLES

| Sample ID | Laboratory ID | Matrix | Date Sampled   | Date Received  |
|-----------|---------------|--------|----------------|----------------|
| 4E        | P2H0229-01    | Soil   | 08/09/02 13:46 | 08/09/02 15:00 |
| 4N        | P2H0229-02    | Soil   | 08/09/02 14:04 | 08/09/02 15:00 |
| 4S        | P2H0229-03    | Soil   | 08/09/02 13:50 | 08/09/02 15:00 |
| 5W        | P2H0229-04    | Soil   | 08/09/02 14:11 | 08/09/02 15:00 |
| 5B        | P2H0229-05    | Soil   | 08/09/02 14:07 | 08/09/02 15:00 |
| 4B        | P2H0229-06    | Soil   | 08/09/02 13:59 | 08/09/02 15:00 |
| 4B DUP    | P2H0229-07    | Soil   | 08/09/02 13:59 | 08/09/02 15:00 |

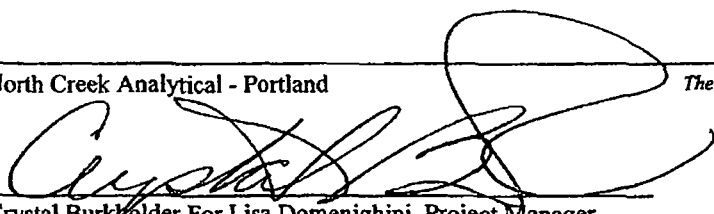
HART CROWSER, INC.

AUG 27 2002

Portland Office

North Creek Analytical - Portland

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Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Levi Fernandes

Reported:  
08/23/02 17:29

**Diesel and Heavy Range Hydrocarbons per NWTPH-Dx Method**  
**North Creek Analytical - Portland**

| Analyte   | Result | Reporting<br>Limit | Units     | Dilution | Method   | Prepared | Analyzed | Batch   | Notes |
|---|--------|--------------------|-----------|----------|----------|----------|----------|---------|-------|
| <b>4E (P2H0229-01) Soil</b> <span style="float: right;">Sampled: 08/09/02 Received: 08/09/02</span> |        |                    |           |          |          |          |          |         |       |
| Diesel Range Organics   | ND     | 25.0               | mg/kg dry | 1        | NWTPH-Dx | 08/09/02 | 08/09/02 | 2080311 |       |
| Heavy Oil Range Hydrocarbons  | ND     | 50.0               | "         | "        | "        | "        | "        | "       |       |
| Surr: 1-Chlorooctadecane  | 92.7 % | 50-150             |           |          |          |          |          |         |       |
| <b>4N (P2H0229-02) Soil</b> <span style="float: right;">Sampled: 08/09/02 Received: 08/09/02</span> |        |                    |           |          |          |          |          |         |       |
| Diesel Range Organics   | ND     | 25.0               | mg/kg dry | 1        | NWTPH-Dx | 08/09/02 | 08/09/02 | 2080311 |       |
| Heavy Oil Range Hydrocarbons  | ND     | 50.0               | "         | "        | "        | "        | "        | "       |       |
| Surr: 1-Chlorooctadecane  | 104 %  | 50-150             |           |          |          |          |          |         |       |
| <b>4S (P2H0229-03) Soil</b> <span style="float: right;">Sampled: 08/09/02 Received: 08/09/02</span> |        |                    |           |          |          |          |          |         |       |
| Diesel Range Organics   | ND     | 25.0               | mg/kg dry | 1        | NWTPH-Dx | 08/09/02 | 08/09/02 | 2080311 |       |
| Heavy Oil Range Hydrocarbons  | ND     | 50.0               | "         | "        | "        | "        | "        | "       |       |
| Surr: 1-Chlorooctadecane  | 95.9 % | 50-150             |           |          |          |          |          |         |       |
| <b>5W (P2H0229-04) Soil</b> <span style="float: right;">Sampled: 08/09/02 Received: 08/09/02</span> |        |                    |           |          |          |          |          |         |       |
| Diesel Range Organics   | ND     | 25.0               | mg/kg dry | 1        | NWTPH-Dx | 08/09/02 | 08/09/02 | 2080311 |       |
| Heavy Oil Range Hydrocarbons  | ND     | 50.0               | "         | "        | "        | "        | "        | "       |       |
| Surr: 1-Chlorooctadecane  | 98.2 % | 50-150             |           |          |          |          |          |         |       |
| <b>5B (P2H0229-05) Soil</b> <span style="float: right;">Sampled: 08/09/02 Received: 08/09/02</span> |        |                    |           |          |          |          |          |         |       |
| Diesel Range Organics   | ND     | 25.0               | mg/kg dry | 1        | NWTPH-Dx | 08/09/02 | 08/09/02 | 2080311 |       |
| Heavy Oil Range Hydrocarbons  | ND     | 50.0               | "         | "        | "        | "        | "        | "       |       |
| Surr: 1-Chlorooctadecane  | 98.7 % | 50-150             |           |          |          |          |          |         |       |
| <b>4B (P2H0229-06) Soil</b> <span style="float: right;">Sampled: 08/09/02 Received: 08/09/02</span> |        |                    |           |          |          |          |          |         |       |
| Diesel Range Organics   | ND     | 25.0               | mg/kg dry | 1        | NWTPH-Dx | 08/09/02 | 08/09/02 | 2080311 |       |
| Heavy Oil Range Hydrocarbons  | ND     | 50.0               | "         | "        | "        | "        | "        | "       |       |
| Surr: 1-Chlorooctadecane  | 96.2 % | 50-150             |           |          |          |          |          |         |       |

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Hart Crowser  
Five Centerpointe Drive  
Lake Oswego, OR 97035

Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Levi Fernandes


Reported:  
08/23/02 17:29

**Diesel and Heavy Range Hydrocarbons per NWTPH-Dx Method**  
**North Creek Analytical - Portland**

| Analyte                         | Result | Reporting<br>Limit | Units     | Dilution | Method   | Prepared                             | Analyzed | Batch   | Notes |
|---------------------------------|--------|--------------------|-----------|----------|----------|--------------------------------------|----------|---------|-------|
| <b>4B DUP (P2H0229-07) Soil</b> |        |                    |           |          |          | Sampled: 08/09/02 Received: 08/09/02 |          |         |       |
| Diesel Range Organics           | ND     | 25.0               | mg/kg dry | 1        | NWTPH-Dx | 08/12/02                             | 08/12/02 | 2080365 |       |
| Heavy Oil Range Hydrocarbons    | ND     | 50.0               | "         | "        | "        | "                                    | "        | "       |       |
| Surr: 1-Chlorooctadecane        | 91.4 % | 50-150             |           |          |          |                                      |          |         |       |

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Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Levi Fernandes

Reported:  
08/23/02 17:29

**Polynuclear Aromatic Compounds per EPA 8270M-SIM**  
**North Creek Analytical - Portland**

| Analyte                    | Result | Reporting Limit | Units     | Dilution | Method    | Prepared                             | Analyzed | Batch   | Notes |
|----------------------------|--------|-----------------|-----------|----------|-----------|--------------------------------------|----------|---------|-------|
| 4E (P2H0229-01) Soil       |        |                 |           |          |           |                                      |          |         |       |
|                            |        |                 |           |          |           | Sampled: 08/09/02 Received: 08/09/02 |          |         |       |
| Acenaphthene               | ND     | 13.4            | ug/kg dry | 1        | EPA 8270m | 08/09/02                             | 08/09/02 | 2080352 |       |
| Acenaphthylene             | ND     | 13.4            | "         | "        | "         | "                                    | "        | "       |       |
| Anthracene                 | ND     | 13.4            | "         | "        | "         | "                                    | "        | "       |       |
| Benzo (a) anthracene       | ND     | 13.4            | "         | "        | "         | "                                    | "        | "       |       |
| Benzo (a) pyrene           | ND     | 13.4            | "         | "        | "         | "                                    | "        | "       |       |
| Benzo (b) fluoranthene     | ND     | 13.4            | "         | "        | "         | "                                    | "        | "       |       |
| Benzo (ghi) perylene       | ND     | 13.4            | "         | "        | "         | "                                    | "        | "       |       |
| Benzo (k) fluoranthene     | ND     | 13.4            | "         | "        | "         | "                                    | "        | "       |       |
| Chrysene                   | ND     | 13.4            | "         | "        | "         | "                                    | "        | "       |       |
| Dibenzo (a,h) anthracene   | ND     | 13.4            | "         | "        | "         | "                                    | "        | "       |       |
| Fluoranthene               | ND     | 13.4            | "         | "        | "         | "                                    | "        | "       |       |
| Fluorene                   | ND     | 13.4            | "         | "        | "         | "                                    | "        | "       |       |
| Indeno (1,2,3-cd) pyrene   | ND     | 13.4            | "         | "        | "         | "                                    | "        | "       |       |
| Naphthalene                | ND     | 13.4            | "         | "        | "         | "                                    | "        | "       |       |
| Phenanthrene               | ND     | 13.4            | "         | "        | "         | "                                    | "        | "       |       |
| Pyrene                     | ND     | 13.4            | "         | "        | "         | "                                    | "        | "       |       |
| Surr: Fluorene-d10         | 40.9 % | 40-150          |           |          |           |                                      |          |         |       |
| Surr: Pyrene-d10           | 50.9 % | 40-150          |           |          |           |                                      |          |         |       |
| Surr: Benzo (a) pyrene-d12 | 51.0 % | 40-150          |           |          |           |                                      |          |         |       |

|                          |        |        |           |   |           |                                      |          |         |  |
|--------------------------|--------|--------|-----------|---|-----------|--------------------------------------|----------|---------|--|
| 5W (P2H0229-04) Soil     |        |        |           |   |           |                                      |          |         |  |
|                          |        |        |           |   |           | Sampled: 08/09/02 Received: 08/09/02 |          |         |  |
| Acenaphthene             | ND     | 13.4   | ug/kg dry | 1 | EPA 8270m | 08/09/02                             | 08/09/02 | 2080352 |  |
| Acenaphthylene           | ND     | 13.4   | "         | " | "         | "                                    | "        | "       |  |
| Anthracene               | ND     | 13.4   | "         | " | "         | "                                    | "        | "       |  |
| Benzo (a) anthracene     | ND     | 13.4   | "         | " | "         | "                                    | "        | "       |  |
| Benzo (a) pyrene         | ND     | 13.4   | "         | " | "         | "                                    | "        | "       |  |
| Benzo (b) fluoranthene   | ND     | 13.4   | "         | " | "         | "                                    | "        | "       |  |
| Benzo (ghi) perylene     | ND     | 13.4   | "         | " | "         | "                                    | "        | "       |  |
| Benzo (k) fluoranthene   | ND     | 13.4   | "         | " | "         | "                                    | "        | "       |  |
| Chrysene                 | ND     | 13.4   | "         | " | "         | "                                    | "        | "       |  |
| Dibenzo (a,h) anthracene | ND     | 13.4   | "         | " | "         | "                                    | "        | "       |  |
| Fluoranthene             | ND     | 13.4   | "         | " | "         | "                                    | "        | "       |  |
| Fluorene                 | ND     | 13.4   | "         | " | "         | "                                    | "        | "       |  |
| Indeno (1,2,3-cd) pyrene | ND     | 13.4   | "         | " | "         | "                                    | "        | "       |  |
| Naphthalene              | ND     | 13.4   | "         | " | "         | "                                    | "        | "       |  |
| Phenanthrene             | ND     | 13.4   | "         | " | "         | "                                    | "        | "       |  |
| Pyrene                   | ND     | 13.4   | "         | " | "         | "                                    | "        | "       |  |
| Surr: Fluorene-d10       | 91.3 % | 40-150 |           |   |           |                                      |          |         |  |

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Hart Crowser  
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Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Levi Fernandes

Reported:  
08/23/02 17:29

**Polynuclear Aromatic Compounds per EPA 8270M-SIM**  
**North Creek Analytical - Portland**

| Analyte                     | Result | Reporting Limit | Units     | Dilution | Method                               | Prepared | Analyzed | Batch   | Notes |
|-----------------------------|--------|-----------------|-----------|----------|--------------------------------------|----------|----------|---------|-------|
| <b>5W (P2H0229-04) Soil</b> |        |                 |           |          | Sampled: 08/09/02 Received: 08/09/02 |          |          |         |       |
| Surr: Pyrene-d10            | 105 %  | 40-150          |           |          |                                      |          |          |         |       |
| Surr: Benzo (a) pyrene-d12  | 96.7 % | 40-150          |           |          |                                      |          |          |         |       |
| <b>5B (P2H0229-05) Soil</b> |        |                 |           |          | Sampled: 08/09/02 Received: 08/09/02 |          |          |         |       |
| Acenaphthene                | ND     | 13.4            | ug/kg dry | 1        | EPA 8270m                            | 08/14/02 | 08/19/02 | 2080453 |       |
| Acenaphthylene              | ND     | 13.4            | "         | "        | "                                    | "        | "        | "       |       |
| Anthracene                  | ND     | 13.4            | "         | "        | "                                    | "        | "        | "       |       |
| Benzo (a) anthracene        | ND     | 13.4            | "         | "        | "                                    | "        | "        | "       |       |
| Benzo (a) pyrene            | ND     | 13.4            | "         | "        | "                                    | "        | "        | "       |       |
| Benzo (b) fluoranthene      | ND     | 13.4            | "         | "        | "                                    | "        | "        | "       |       |
| Benzo (ghi) perylene        | ND     | 13.4            | "         | "        | "                                    | "        | "        | "       |       |
| Benzo (k) fluoranthene      | ND     | 13.4            | "         | "        | "                                    | "        | "        | "       |       |
| Chrysene                    | ND     | 13.4            | "         | "        | "                                    | "        | "        | "       |       |
| Dibenzo (a,h) anthracene    | ND     | 13.4            | "         | "        | "                                    | "        | "        | "       |       |
| Fluoranthene                | ND     | 13.4            | "         | "        | "                                    | "        | "        | "       |       |
| Fluorene                    | ND     | 13.4            | "         | "        | "                                    | "        | "        | "       |       |
| Indeno (1,2,3-cd) pyrene    | ND     | 13.4            | "         | "        | "                                    | "        | "        | "       |       |
| Naphthalene                 | ND     | 13.4            | "         | "        | "                                    | "        | "        | "       |       |
| Phenanthrene                | ND     | 13.4            | "         | "        | "                                    | "        | "        | "       |       |
| Pyrene                      | ND     | 13.4            | "         | "        | "                                    | "        | "        | "       |       |
| Surr: Fluorene-d10          | 47.6 % | 40-150          |           |          |                                      |          |          |         |       |
| Surr: Pyrene-d10            | 68.2 % | 40-150          |           |          |                                      |          |          |         |       |
| Surr: Benzo (a) pyrene-d12  | 55.2 % | 40-150          |           |          |                                      |          |          |         |       |

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Hart Crowser  
Five Centerpointe Drive  
Lake Oswego, OR 97035

Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Levi Fernandes

Reported:  
08/23/02 17:29

**Percent Dry Weight (Solids) per Standard Methods**  
**North Creek Analytical - Portland**

| Analyte                         | Result | Reporting<br>Limit | Units       | Dilution | Method  | Prepared                             | Analyzed | Batch   | Notes |
|---------------------------------|--------|--------------------|-------------|----------|---------|--------------------------------------|----------|---------|-------|
| <b>4E (P2H0229-01) Soil</b>     |        |                    |             |          |         | Sampled: 08/09/02 Received: 08/09/02 |          |         |       |
| % Solids                        | 94.6   | 1.00               | % by Weight | 1        | NCA SOP | 08/09/02                             | 08/12/02 | 2080336 |       |
| <b>4N (P2H0229-02) Soil</b>     |        |                    |             |          |         | Sampled: 08/09/02 Received: 08/09/02 |          |         |       |
| % Solids                        | 85.8   | 1.00               | % by Weight | 1        | NCA SOP | 08/09/02                             | 08/12/02 | 2080336 |       |
| <b>4S (P2H0229-03) Soil</b>     |        |                    |             |          |         | Sampled: 08/09/02 Received: 08/09/02 |          |         |       |
| % Solids                        | 92.9   | 1.00               | % by Weight | 1        | NCA SOP | 08/09/02                             | 08/12/02 | 2080336 |       |
| <b>5W (P2H0229-04) Soil</b>     |        |                    |             |          |         | Sampled: 08/09/02 Received: 08/09/02 |          |         |       |
| % Solids                        | 85.8   | 1.00               | % by Weight | 1        | NCA SOP | 08/09/02                             | 08/12/02 | 2080336 |       |
| <b>5B (P2H0229-05) Soil</b>     |        |                    |             |          |         | Sampled: 08/09/02 Received: 08/09/02 |          |         |       |
| % Solids                        | 91.4   | 1.00               | % by Weight | 1        | NCA SOP | 08/09/02                             | 08/12/02 | 2080336 |       |
| <b>4B (P2H0229-06) Soil</b>     |        |                    |             |          |         | Sampled: 08/09/02 Received: 08/09/02 |          |         |       |
| % Solids                        | 91.1   | 1.00               | % by Weight | 1        | NCA SOP | 08/09/02                             | 08/12/02 | 2080336 |       |
| <b>4B DUP (P2H0229-07) Soil</b> |        |                    |             |          |         | Sampled: 08/09/02 Received: 08/09/02 |          |         |       |
| % Solids                        | 91.4   | 1.00               | % by Weight | 1        | NCA SOP | 08/09/02                             | 08/12/02 | 2080336 |       |

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Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Levi Fernandes

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**Diesel and Heavy Range Hydrocarbons per NWTRP-DX Method - Quality Control**

**North Creek Analytical - Portland**

| Analyte | Result | Reporting<br>Limit | Units | Spike<br>Level | Source<br>Result | %REC<br>Limits | RPD | RPD<br>Limit | Notes |
|---------|--------|--------------------|-------|----------------|------------------|----------------|-----|--------------|-------|
|---------|--------|--------------------|-------|----------------|------------------|----------------|-----|--------------|-------|

**Batch 2080311 - EPA 3550 Fuels**

**Blank (2080311-BLK1)**

Prepared & Analyzed: 08/09/02

Diesel Range Organics ND 25.0 mg/kg  
Heavy Oil Range Hydrocarbons ND 50.0 "

Surr: 1-Chlorooctadecane 4.92 " 4.80 102 50-150

**LCS (2080311-BS1)**

Prepared: 08/09/02 Analyzed: 08/12/02

Diesel Range Organics 110 25.0 mg/kg 125 88.0 50-150  
Heavy Oil Range Hydrocarbons 86.1 50.0 " 75.0 115 50-150

Surr: 1-Chlorooctadecane 5.33 " 4.80 111 50-150

**Duplicate (2080311-DUP1)**

Source: P2H0189-01

Prepared & Analyzed: 08/09/02

Diesel Range Organics ND 25.0 mg/kg dry ND 50  
Heavy Oil Range Hydrocarbons ND 50.0 " ND 50

Surr: 1-Chlorooctadecane 5.33 " 5.29 101 50-150

**Duplicate (2080311-DUP2)**

Source: P2H0189-02

Prepared & Analyzed: 08/09/02

Diesel Range Organics ND 25.0 mg/kg dry ND 50  
Heavy Oil Range Hydrocarbons ND 50.0 " ND 50

Surr: 1-Chlorooctadecane 5.31 " 5.28 101 50-150

**Batch 2080365 - EPA 3550 Fuels**

**Blank (2080365-BLK1)**

Prepared & Analyzed: 08/12/02

Diesel Range Organics ND 25.0 mg/kg  
Heavy Oil Range Hydrocarbons ND 50.0 "

Surr: 1-Chlorooctadecane 4.07 " 4.80 84.8 50-150

**LCS (2080365-BS1)**

Prepared & Analyzed: 08/12/02

Diesel Range Organics 99.6 25.0 mg/kg 125 79.7 50-150  
Heavy Oil Range Hydrocarbons 63.3 50.0 " 75.0 84.4 50-150

Surr: 1-Chlorooctadecane 3.32 " 4.80 69.2 50-150

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Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Levi Fernandes

Reported:  
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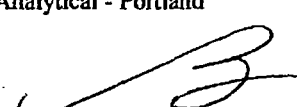
**Diesel and Heavy Range Hydrocarbons per NWTFEDX Method - Quality Control**

**North Creek Analytical - Portland**

| Analyte                               | Result | Reporting<br>Limit        | Units     | Spike<br>Level                           | Source<br>Result | %REC<br>Limits | RPD    | RPD<br>Limit | Notes |
|---------------------------------------|--------|---------------------------|-----------|--|------------------|----------------|--------|--------------|-------|
| <b>Batch 2080365 - EPA 3550 Fuels</b> |        |                           |           |  |                  |                |        |              |       |
| <b>Duplicate (2080365-DUP1)</b>       |        | <b>Source: P2H0235-01</b> |           | <b>Prepared &amp; Analyzed: 08/12/02</b> |                  |                |        |              |       |
| Diesel Range Organics                 | ND     | 25.0                      | mg/kg dry |  | ND               |                | 3.77   | 50           | Q-06  |
| Heavy Oil Range Hydrocarbons          | ND     | 50.0                      | "         |  | ND               |                |        | 50           |       |
| Surr: 1-Chlorooctadecane              | 5.42   |                           | "         | 5.60                                     |                  | 96.8           | 50-150 |              |       |
| <b>Duplicate (2080365-DUP2)</b>       |        | <b>Source: P2H0251-01</b> |           | <b>Prepared &amp; Analyzed: 08/12/02</b> |                  |                |        |              |       |
| Diesel Range Organics                 | 84.9   | 25.0                      | mg/kg dry |  | 556              |                | 147    | 50           | Q-1   |
| Heavy Oil Range Hydrocarbons          | ND     | 50.0                      | "         |  | ND               |                |        | 50           |       |
| Surr: 1-Chlorooctadecane              | 5.13   |                           | "         | 6.30                                     |                  | 81.4           | 50-150 |              |       |

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Hart Crowser  
Five Centerpointe Drive  
Lake Oswego, OR 97035

Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Levi Fernandes

Reported:  
08/23/02 17:29

Polynuclear Aromatic Compounds per EPA 8270M-SIM - Quality Control

North Creek Analytical - Portland

| Analyte | Result | Reporting<br>Limit | Units | Spike<br>Level | Source<br>Result | %REC<br>Limits | RPD | RPD<br>Limit | Notes |
|---------|--------|--------------------|-------|----------------|------------------|----------------|-----|--------------|-------|
|---------|--------|--------------------|-------|----------------|------------------|----------------|-----|--------------|-------|

Batch 2080352 - EPA 3550

Blank (2080352-BLK1)

Prepared: 08/09/02 Analyzed: 08/12/02

|                          |    |      |       |
|--------------------------|----|------|-------|
| Acenaphthene             | ND | 13.4 | ug/kg |
| Acenaphthylene           | ND | 13.4 | "     |
| Anthracene               | ND | 13.4 | "     |
| Benzo (a) anthracene     | ND | 13.4 | "     |
| Benzo (a) pyrene         | ND | 13.4 | "     |
| Benzo (b) fluoranthene   | ND | 13.4 | "     |
| Benzo (ghi) perylene     | ND | 13.4 | "     |
| Benzo (k) fluoranthene   | ND | 13.4 | "     |
| Chrysene                 | ND | 13.4 | "     |
| Dibenzo (a,h) anthracene | ND | 13.4 | "     |
| Fluoranthene             | ND | 13.4 | "     |
| Fluorene                 | ND | 13.4 | "     |
| Indeno (1,2,3-cd) pyrene | ND | 13.4 | "     |
| Naphthalene              | ND | 13.4 | "     |
| Phenanthrene             | ND | 13.4 | "     |
| Pyrene                   | ND | 13.4 | "     |

|                            |      |   |      |      |        |
|----------------------------|------|---|------|------|--------|
| Surr: Fluorene-d10         | 79.0 | " | 83.3 | 94.8 | 40-150 |
| Surr: Pyrene-d10           | 89.6 | " | 83.3 | 108  | 40-150 |
| Surr: Benzo (a) pyrene-d12 | 84.2 | " | 83.3 | 101  | 40-150 |

LCS (2080352-BS1)

Prepared & Analyzed: 08/09/02

|                            |      |      |       |      |      |        |
|----------------------------|------|------|-------|------|------|--------|
| Acenaphthene               | 123  | 13.4 | ug/kg | 167  | 73.7 | 33-139 |
| Benzo (a) pyrene           | 144  | 13.4 | "     | 167  | 86.2 | 45-149 |
| Pyrene                     | 118  | 13.4 | "     | 167  | 70.7 | 39-138 |
| Surr: Fluorene-d10         | 78.6 |      | "     | 83.3 | 94.4 | 40-150 |
| Surr: Pyrene-d10           | 80.5 |      | "     | 83.3 | 96.6 | 40-150 |
| Surr: Benzo (a) pyrene-d12 | 81.8 |      | "     | 83.3 | 98.2 | 40-150 |

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Crystal Burkholder For Lisa Domenighini, Project Manager

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Environmental Laboratory Network

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POPT1S603062



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Hart Crowser  
Five Centerpointe Drive  
Lake Oswego, OR 97035

Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Levi Fernandes

Reported:  
08/23/02 17:29

Polynuclear Aromatic Compounds per EPA 8270M SIM - Quality Control

North Creek Analytical - Portland

| Analyte | Result | Reporting<br>Limit | Units | Spike<br>Level | Source<br>Result | %REC<br>Limits | RPD | RPD<br>Limit | Notes |
|---------|--------|--------------------|-------|----------------|------------------|----------------|-----|--------------|-------|
|---------|--------|--------------------|-------|----------------|------------------|----------------|-----|--------------|-------|

Batch 2080352 - EPA 3550

Matrix Spike (2080352-MS1)

Source: P2H0229-01

Prepared & Analyzed: 08/09/02

|                            |      |      |           |      |    |      |        |  |  |
|----------------------------|------|------|-----------|------|----|------|--------|--|--|
| Acenaphthene               | 131  | 13.4 | ug/kg dry | 176  | ND | 74.4 | 33-139 |  |  |
| Benzo (a) pyrene           | 163  | 13.4 | "         | 176  | ND | 92.6 | 45-149 |  |  |
| Pyrene                     | 134  | 13.4 | "         | 176  | ND | 76.1 | 39-138 |  |  |
| Surr: Fluorene-d10         | 78.0 |      | "         | 88.1 |    | 88.5 | 40-150 |  |  |
| Surr: Pyrene-d10           | 87.0 |      | "         | 88.1 |    | 98.8 | 40-150 |  |  |
| Surr: Benzo (a) pyrene-d12 | 88.3 |      | "         | 88.1 |    | 100  | 40-150 |  |  |

Matrix Spike Dup (2080352-MSD1)

Source: P2H0229-01

Prepared & Analyzed: 08/09/02

|                            |      |      |           |      |    |      |        |       |    |
|----------------------------|------|------|-----------|------|----|------|--------|-------|----|
| Acenaphthene               | 151  | 13.4 | ug/kg dry | 176  | ND | 85.8 | 33-139 | 14.2  | 60 |
| Benzo (a) pyrene           | 164  | 13.4 | "         | 176  | ND | 93.2 | 45-149 | 0.612 | 60 |
| Pyrene                     | 157  | 13.4 | "         | 176  | ND | 89.2 | 39-138 | 15.8  | 60 |
| Surr: Fluorene-d10         | 81.9 |      | "         | 88.1 |    | 93.0 | 40-150 |       |    |
| Surr: Pyrene-d10           | 91.9 |      | "         | 88.1 |    | 104  | 40-150 |       |    |
| Surr: Benzo (a) pyrene-d12 | 84.1 |      | "         | 88.1 |    | 95.5 | 40-150 |       |    |

Batch 2080453 - EPA 3550

Blank (2080453-BLK1)

Prepared: 08/14/02 Analyzed: 08/22/02

|                          |      |      |       |      |  |      |        |  |  |
|--------------------------|------|------|-------|------|--|------|--------|--|--|
| Acenaphthene             | ND   | 13.4 | ug/kg |      |  |      |        |  |  |
| Acenaphthylene           | ND   | 13.4 | "     |      |  |      |        |  |  |
| Anthracene               | ND   | 13.4 | "     |      |  |      |        |  |  |
| Benzo (a) anthracene     | ND   | 13.4 | "     |      |  |      |        |  |  |
| Benzo (a) pyrene         | ND   | 13.4 | "     |      |  |      |        |  |  |
| Benzo (b) fluoranthene   | ND   | 13.4 | "     |      |  |      |        |  |  |
| Benzo (ghi) perylene     | ND   | 13.4 | "     |      |  |      |        |  |  |
| Benzo (k) fluoranthene   | ND   | 13.4 | "     |      |  |      |        |  |  |
| Chrysene                 | ND   | 13.4 | "     |      |  |      |        |  |  |
| Dibenzo (a,h) anthracene | ND   | 13.4 | "     |      |  |      |        |  |  |
| Fluoranthene             | ND   | 13.4 | "     |      |  |      |        |  |  |
| Fluorene                 | ND   | 13.4 | "     |      |  |      |        |  |  |
| Indeno (1,2,3-cd) pyrene | ND   | 13.4 | "     |      |  |      |        |  |  |
| Naphthalene              | ND   | 13.4 | "     |      |  |      |        |  |  |
| Phenanthrene             | ND   | 13.4 | "     |      |  |      |        |  |  |
| Pyrene                   | ND   | 13.4 | "     |      |  |      |        |  |  |
| Surr: Fluorene-d10       | 61.9 |      | "     | 83.3 |  | 74.3 | 40-150 |  |  |
| Surr: Pyrene-d10         | 76.8 |      | "     | 83.3 |  | 92.2 | 40-150 |  |  |

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Environmental Laboratory Network

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Hart Crowser  
Five Centerpointe Drive  
Lake Oswego, OR 97035

Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Levi Fernandes

Reported:  
08/23/02 17:29

Polynuclear Aromatic Compounds per EPA 8270-M-SIM - Quality Control

North Creek Analytical - Portland

| Analyte | Result | Reporting<br>Limit | Units | Spike<br>Level | Source<br>Result | %REC<br>Limits | RPD | RPD<br>Limit | Notes |
|---------|--------|--------------------|-------|----------------|------------------|----------------|-----|--------------|-------|
|---------|--------|--------------------|-------|----------------|------------------|----------------|-----|--------------|-------|

Batch 2080453 - EPA 3550

Blank (2080453-BLK1)

Prepared: 08/14/02 Analyzed: 08/22/02

Surr: Benzo (a) pyrene-d12 73.0 ug/kg 83.3 87.6 40-150

LCS (2080453-BS1)

Prepared: 08/14/02 Analyzed: 08/19/02

Acenaphthene 65.9 13.4 ug/kg 167 39.5 33-139  
Benzo (a) pyrene 93.5 13.4 " 167 56.0 45-149  
Pyrene 112 13.4 " 167 67.1 39-138  
Surr: Fluorene-d10 43.9 " 83.3 52.7 40-150  
Surr: Pyrene-d10 62.8 " 83.3 75.4 40-150  
Surr: Benzo (a) pyrene-d12 51.8 " 83.3 62.2 40-150

Matrix Spike (2080453-MS1)

Source: P2H0229-05

Prepared: 08/14/02 Analyzed: 08/19/02

Acenaphthene 62.3 13.4 ug/kg dry 182 ND 34.2 33-139  
Benzo (a) pyrene 91.2 13.4 " 182 ND 50.1 45-149  
Pyrene 109 13.4 " 182 ND 59.9 39-138  
Surr: Fluorene-d10 43.5 " 91.1 47.7 40-150  
Surr: Pyrene-d10 63.6 " 91.1 69.8 40-150  
Surr: Benzo (a) pyrene-d12 53.1 " 91.1 58.3 40-150

Matrix Spike Dup (2080453-MSD1)

Source: P2H0229-05

Prepared: 08/14/02 Analyzed: 08/19/02

Acenaphthene 67.9 13.4 ug/kg dry 182 ND 37.3 33-139 8.60 60  
Benzo (a) pyrene 93.8 13.4 " 182 ND 51.5 45-149 2.81 60  
Pyrene 117 13.4 " 182 ND 64.3 39-138 7.08 60  
Surr: Fluorene-d10 49.3 " 91.1 54.1 40-150  
Surr: Pyrene-d10 69.6 " 91.1 76.4 40-150  
Surr: Benzo (a) pyrene-d12 55.6 " 91.1 61.0 40-150

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POPT1S603064





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Hart Crowser  
Five Centerpointe Drive  
Lake Oswego, OR 97035

Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Levi Fernandes

Reported:  
08/23/02 17:29

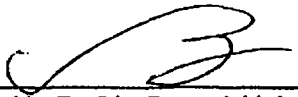
Percent Dry Weight (Solids) per Standard Methods - Quality Control

North Creek Analytical - Portland

| Analyte                           | Result | Reporting<br>Limit        | Units | Spike<br>Level                               | Source<br>Result | %REC<br>Limits | RPD   | RPD<br>Limit | Notes |
|-----------------------------------|--------|---------------------------|-------|--|------------------|----------------|-------|--------------|-------|
| <b>Batch 2080336 - Dry Weight</b> |        |                           |       |  |                  |                |       |              |       |
| <b>Duplicate (2080336-DUP1)</b>   |        | <b>Source: P2H0198-01</b> |       | <b>Prepared: 08/09/02 Analyzed: 08/12/02</b> |                  |                |       |              |       |
| % Solids                          | 73.9   | 1.00 % by Weight          |       | 74.3   |                  |                | 0.540 | 20           |       |
| <b>Duplicate (2080336-DUP2)</b>   |        | <b>Source: P2G0959-03</b> |       | <b>Prepared: 08/09/02 Analyzed: 08/12/02</b> |                  |                |       |              |       |
| % Solids                          | 85.9   | 1.00 % by Weight          |       | 86.0   |                  |                | 0.116 | 20           |       |

North Creek Analytical - Portland

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POPT1S603065



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Hart Crowser  
Five Centerpointe Drive  
Lake Oswego, OR 97035

Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Levi Fernandes


Reported:  
08/23/02 17:29

### Notes and Definitions

- Q-06 Analyses are not controlled on RPD values from sample concentrations less than 5 times the reporting limit.
- Q-14 The Spike Recovery and/or RPD is outside of control limits due to a non-homogeneous sample matrix.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis. MRLs are adjusted if %Solids are less than 50%.
- wet Sample results reported on a wet weight basis (as received)
- RPD Relative Percent Difference

North Creek Analytical - Portland

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Crystal Burkholder For Lisa Domenighini, Project Manager

North Creek Analytical, Inc.  
Environmental Laboratory Network

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POPT1S603066

Samples Shipped to: \_\_\_\_\_



Hart Crowder, Inc.  
Five Centerpointe Drive, Suite 240  
Lake Oswego, OR 97035-8652  
Phone: 503-620-7284 FAX: 503-6206918

*Journal of Management Education*

### Lab to Return White Copy to Hart Crowser

CC: Client

POP1S603067



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541.383.9310 fax 541.382.7588

Hart Crowser  
Five Centerpointe Drive  
Lake Oswego, OR 97035

Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Levi Fernandez

Reported:  
08/26/02 18:01

#### ANALYTICAL REPORT FOR SAMPLES

| Sample ID    | Laboratory ID | Matrix | Date Sampled   | Date Received  |
|--------------|---------------|--------|----------------|----------------|
| IN           | P2H0254-01    | Soil   | 08/12/02 11:01 | 08/12/02 11:30 |
| 1W           | P2H0254-02    | Soil   | 08/12/02 10:33 | 08/12/02 11:30 |
| 1B North     | P2H0254-03    | Soil   | 08/12/02 10:56 | 08/12/02 11:30 |
| 1E           | P2H0254-04    | Soil   | 08/12/02 10:29 | 08/12/02 11:30 |
| 1B South     | P2H0254-05    | Soil   | 08/12/02 10:51 | 08/12/02 11:30 |
| 1B South Dup | P2H0254-06    | Soil   | 08/12/02 10:51 | 08/12/02 11:30 |

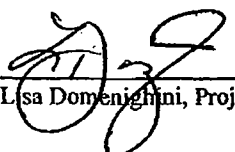
HART CROWSER, INC.

AUG 27 2002

Portland Office

North Creek Analytical - Portland

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Lisa Domenighini, Project Manager

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Environmental Laboratory Network

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POPT1S603068



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Hart Crowser  
Five Centerpointe Drive  
Lake Oswego, OR 97035

Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Levi Fernandez

Reported:  
08/26/02 18:01

**Diesel and Heavy Range Hydrocarbons per NWTPH-Dx Method**  
**North Creek Analytical - Portland**

| Analyte   | Result | Reporting<br>Limit | Units     | Dilution | Method   | Prepared | Analyzed | Batch   | Notes |
|---|--------|--------------------|-----------|----------|----------|----------|----------|---------|-------|
| <b>1N (P2H0254-01) Soil</b> <span style="float: right;">Sampled: 08/12/02 Received: 08/12/02</span>           |        |                    |           |          |          |          |          |         |       |
| Diesel Range Organics   | ND     | 25.0               | mg/kg dry | 1        | NWTPH-Dx | 08/12/02 | 08/13/02 | 2080365 |       |
| Heavy Oil Range Hydrocarbons  | 143    | 50.0               | "         | "        | "        | "        | "        | "       |       |
| Surr: 1-Chlorooctadecane  | 112 %  | 50-150             |           |          |          |          |          |         |       |
| <b>1W (P2H0254-02) Soil</b> <span style="float: right;">Sampled: 08/12/02 Received: 08/12/02</span>           |        |                    |           |          |          |          |          |         |       |
| Diesel Range Organics   | ND     | 25.0               | mg/kg dry | 1        | NWTPH-Dx | 08/12/02 | 08/13/02 | 2080365 |       |
| Heavy Oil Range Hydrocarbons  | 50.7   | 50.0               | "         | "        | "        | "        | "        | "       |       |
| Surr: 1-Chlorooctadecane  | 82.2 % | 50-150             |           |          |          |          |          |         |       |
| <b>1B North (P2H0254-03) Soil</b> <span style="float: right;">Sampled: 08/12/02 Received: 08/12/02</span>     |        |                    |           |          |          |          |          |         |       |
| Diesel Range Organics   | ND     | 25.0               | mg/kg dry | 1        | NWTPH-Dx | 08/13/02 | 08/13/02 | 2080423 |       |
| Heavy Oil Range Hydrocarbons  | 122    | 50.0               | "         | "        | "        | "        | "        | "       |       |
| Surr: 1-Chlorooctadecane  | 102 %  | 50-150             |           |          |          |          |          |         |       |
| <b>1E (P2H0254-04) Soil</b> <span style="float: right;">Sampled: 08/12/02 Received: 08/12/02</span>           |        |                    |           |          |          |          |          |         |       |
| Diesel Range Organics   | ND     | 25.0               | mg/kg dry | 1        | NWTPH-Dx | 08/12/02 | 08/13/02 | 2080365 |       |
| Heavy Oil Range Hydrocarbons  | 71.2   | 50.0               | "         | "        | "        | "        | "        | "       |       |
| Surr: 1-Chlorooctadecane  | 115 %  | 50-150             |           |          |          |          |          |         |       |
| <b>1B South (P2H0254-05) Soil</b> <span style="float: right;">Sampled: 08/12/02 Received: 08/12/02</span>     |        |                    |           |          |          |          |          |         |       |
| Diesel Range Organics   | ND     | 25.0               | mg/kg dry | 1        | NWTPH-Dx | 08/13/02 | 08/13/02 | 2080423 |       |
| Heavy Oil Range Hydrocarbons  | 108    | 50.0               | "         | "        | "        | "        | "        | "       |       |
| Surr: 1-Chlorooctadecane  | 83.1 % | 50-150             |           |          |          |          |          |         |       |
| <b>1B South Dup (P2H0254-06) Soil</b> <span style="float: right;">Sampled: 08/12/02 Received: 08/12/02</span> |        |                    |           |          |          |          |          |         |       |
| Diesel Range Organics   | ND     | 25.0               | mg/kg dry | 1        | NWTPH-Dx | 08/13/02 | 08/13/02 | 2080423 |       |
| Heavy Oil Range Hydrocarbons  | 63.8   | 50.0               | "         | "        | "        | "        | "        | "       |       |
| Surr: 1-Chlorooctadecane  | 94.8 % | 50-150             |           |          |          |          |          |         |       |

North Creek Analytical - Portland

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Lisa Domenighini, Project Manager

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POPT1S603069



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Hart Crowser  
Five Centerpointe Drive  
Lake Oswego, OR 97035

Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Levi Fernandez

Reported:  
08/26/02 18:01

**Polynuclear Aromatic Compounds per EPA 8270M-SIM**  
**North Creek Analytical - Portland**

| Analyte                     | Result | Reporting Limit | Units     | Dilution | Method    | Prepared                             | Analyzed | Batch   | Notes |
|-----------------------------|--------|-----------------|-----------|----------|-----------|--------------------------------------|----------|---------|-------|
| <b>1W (P2H0254-02) Soil</b> |        |                 |           |          |           | Sampled: 08/12/02 Received: 08/12/02 |          | R-05    |       |
| Acenaphthene                | ND     | 26.8            | ug/kg dry | 2        | EPA 8270m | 08/12/02                             | 08/13/02 | 2080397 |       |
| Acenaphthylene              | ND     | 26.8            | "         | "        | "         | "                                    | "        | "       |       |
| Anthracene                  | 48.4   | 26.8            | "         | "        | "         | "                                    | "        | "       |       |
| Benzo (a) anthracene        | 262    | 26.8            | "         | "        | "         | "                                    | "        | "       |       |
| Benzo (a) pyrene            | 256    | 26.8            | "         | "        | "         | "                                    | "        | "       |       |
| Benzo (b) fluoranthene      | 184    | 26.8            | "         | "        | "         | "                                    | "        | "       |       |
| Benzo (ghi) perylene        | 168    | 26.8            | "         | "        | "         | "                                    | "        | "       |       |
| Benzo (k) fluoranthene      | 186    | 26.8            | "         | "        | "         | "                                    | "        | "       |       |
| Chrysene                    | 282    | 26.8            | "         | "        | "         | "                                    | "        | "       |       |
| Dibenzo (a,h) anthracene    | 48.9   | 26.8            | "         | "        | "         | "                                    | "        | "       |       |
| Fluoranthene                | 350    | 26.8            | "         | "        | "         | "                                    | "        | "       |       |
| Fluorene                    | ND     | 26.8            | "         | "        | "         | "                                    | "        | "       |       |
| Indeno (1,2,3-cd) pyrene    | 137    | 26.8            | "         | "        | "         | "                                    | "        | "       |       |
| Naphthalene                 | ND     | 26.8            | "         | "        | "         | "                                    | "        | "       |       |
| Phenanthrene                | 146    | 26.8            | "         | "        | "         | "                                    | "        | "       |       |
| Pyrene                      | 414    | 26.8            | "         | "        | "         | "                                    | "        | "       |       |
| Surr: Fluorene-d10          | 90.9 % | 40-150          |           |          |           |                                      |          |         |       |
| Surr: Pyrene-d10            | 94.5 % | 40-150          |           |          |           |                                      |          |         |       |
| Surr: Benzo (a) pyrene-d12  | 82.1 % | 40-150          |           |          |           |                                      |          |         |       |

|                             |        |        |           |   |           |                                      |          |         |  |
|-----------------------------|--------|--------|-----------|---|-----------|--------------------------------------|----------|---------|--|
| <b>1E (P2H0254-04) Soil</b> |        |        |           |   |           | Sampled: 08/12/02 Received: 08/12/02 |          | R-05    |  |
| Acenaphthene                | ND     | 26.8   | ug/kg dry | 2 | EPA 8270m | 08/12/02                             | 08/13/02 | 2080397 |  |
| Acenaphthylene              | 45.2   | 26.8   | "         | " | "         | "                                    | "        | "       |  |
| Anthracene                  | 115    | 26.8   | "         | " | "         | "                                    | "        | "       |  |
| Benzo (a) anthracene        | 435    | 26.8   | "         | " | "         | "                                    | "        | "       |  |
| Benzo (a) pyrene            | 514    | 26.8   | "         | " | "         | "                                    | "        | "       |  |
| Benzo (b) fluoranthene      | 313    | 26.8   | "         | " | "         | "                                    | "        | "       |  |
| Benzo (ghi) perylene        | 396    | 26.8   | "         | " | "         | "                                    | "        | "       |  |
| Benzo (k) fluoranthene      | 337    | 26.8   | "         | " | "         | "                                    | "        | "       |  |
| Chrysene                    | 524    | 26.8   | "         | " | "         | "                                    | "        | "       |  |
| Dibenzo (a,h) anthracene    | 93.8   | 26.8   | "         | " | "         | "                                    | "        | "       |  |
| Fluoranthene                | 744    | 26.8   | "         | " | "         | "                                    | "        | "       |  |
| Fluorene                    | ND     | 26.8   | "         | " | "         | "                                    | "        | "       |  |
| Indeno (1,2,3-cd) pyrene    | 299    | 26.8   | "         | " | "         | "                                    | "        | "       |  |
| Naphthalene                 | ND     | 26.8   | "         | " | "         | "                                    | "        | "       |  |
| Phenanthrene                | 425    | 26.8   | "         | " | "         | "                                    | "        | "       |  |
| Pyrene                      | 1040   | 26.8   | "         | " | "         | "                                    | "        | "       |  |
| Surr: Fluorene-d10          | 95.1 % | 40-150 |           |   |           |                                      |          |         |  |

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POPT1S603070



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Hart Crowser  
Five Centerpointe Drive  
Lake Oswego, OR 97035

Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Levi Fernandez

Reported:  
08/26/02 18:01

**Polynuclear Aromatic Compounds per EPA 8270M-SIM**  
**North Creek Analytical - Portland**

| Analyte                               | Result | Reporting Limit | Units     | Dilution | Method    | Prepared          | Analyzed           | Batch   | Notes       |
|---------------------------------------|--------|-----------------|-----------|----------|-----------|-------------------|--------------------|---------|-------------|
| <b>1E (P2H0254-04) Soil</b>           |        |                 |           |          |           | Sampled: 08/12/02 | Received: 08/12/02 |         | <b>R-05</b> |
| Surr: Pyrene-d10                      | 104 %  | 40-150          |           |          |           |                   |                    |         |             |
| Surr: Benzo (a) pyrene-d12            | 97.2 % | 40-150          |           |          |           |                   |                    |         |             |
| <b>1B South (P2H0254-05) Soil</b>     |        |                 |           |          |           | Sampled: 08/12/02 | Received: 08/12/02 |         | <b>R-05</b> |
| Acenaphthene                          | ND     | 67.0            | ug/kg dry | 5        | EPA 8270m | 08/14/02          | 08/20/02           | 2080453 |             |
| Acenaphthylene                        | ND     | 67.0            | "         | "        | "         | "                 | "                  | "       |             |
| Anthracene                            | ND     | 67.0            | "         | "        | "         | "                 | "                  | "       |             |
| Benzo (a) anthracene                  | 80.0   | 67.0            | "         | "        | "         | "                 | "                  | "       |             |
| Benzo (a) pyrene                      | 74.3   | 67.0            | "         | "        | "         | "                 | "                  | "       |             |
| Benzo (b) fluoranthene                | ND     | 67.0            | "         | "        | "         | "                 | "                  | "       |             |
| Benzo (ghi) perylene                  | ND     | 67.0            | "         | "        | "         | "                 | "                  | "       |             |
| Benzo (k) fluoranthene                | ND     | 67.0            | "         | "        | "         | "                 | "                  | "       |             |
| Chrysene                              | 101    | 67.0            | "         | "        | "         | "                 | "                  | "       |             |
| Dibenzo (a,h) anthracene              | ND     | 67.0            | "         | "        | "         | "                 | "                  | "       |             |
| Fluoranthene                          | 121    | 67.0            | "         | "        | "         | "                 | "                  | "       |             |
| Fluorene                              | ND     | 67.0            | "         | "        | "         | "                 | "                  | "       |             |
| Indeno (1,2,3-cd) pyrene              | ND     | 67.0            | "         | "        | "         | "                 | "                  | "       |             |
| Naphthalene                           | ND     | 67.0            | "         | "        | "         | "                 | "                  | "       |             |
| Phenanthrene                          | 71.6   | 67.0            | "         | "        | "         | "                 | "                  | "       |             |
| Pyrene                                | 189    | 67.0            | "         | "        | "         | "                 | "                  | "       |             |
| Surr: Fluorene-d10                    | 41.3 % | 40-150          |           |          |           |                   |                    |         |             |
| Surr: Pyrene-d10                      | 61.8 % | 40-150          |           |          |           |                   |                    |         |             |
| Surr: Benzo (a) pyrene-d12            | 47.9 % | 40-150          |           |          |           |                   |                    |         |             |
| <b>1B South Dup (P2H0254-06) Soil</b> |        |                 |           |          |           | Sampled: 08/12/02 | Received: 08/12/02 |         | <b>R-05</b> |
| Acenaphthene                          | ND     | 67.0            | ug/kg dry | 5        | EPA 8270m | 08/14/02          | 08/20/02           | 2080453 |             |
| Acenaphthylene                        | ND     | 67.0            | "         | "        | "         | "                 | "                  | "       |             |
| Anthracene                            | ND     | 67.0            | "         | "        | "         | "                 | "                  | "       |             |
| Benzo (a) anthracene                  | 83.0   | 67.0            | "         | "        | "         | "                 | "                  | "       |             |
| Benzo (a) pyrene                      | 159    | 67.0            | "         | "        | "         | "                 | "                  | "       |             |
| Benzo (b) fluoranthene                | 86.5   | 67.0            | "         | "        | "         | "                 | "                  | "       |             |
| Benzo (ghi) perylene                  | 251    | 67.0            | "         | "        | "         | "                 | "                  | "       |             |
| Benzo (k) fluoranthene                | 73.7   | 67.0            | "         | "        | "         | "                 | "                  | "       |             |
| Chrysene                              | 107    | 67.0            | "         | "        | "         | "                 | "                  | "       |             |
| Dibenzo (a,h) anthracene              | ND     | 67.0            | "         | "        | "         | "                 | "                  | "       |             |
| Fluoranthene                          | 134    | 67.0            | "         | "        | "         | "                 | "                  | "       |             |
| Fluorene                              | ND     | 67.0            | "         | "        | "         | "                 | "                  | "       |             |
| Indeno (1,2,3-cd) pyrene              | 156    | 67.0            | "         | "        | "         | "                 | "                  | "       |             |

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Hart Crowser  
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Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Levi Fernandez

Reported:  
08/26/02 18:01

**Polynuclear Aromatic Compounds per EPA 8270M-SIM**  
**North Creek Analytical - Portland**

| Analyte                               | Result | Reporting<br>Limit | Units     | Dilution | Method    | Prepared                             | Analyzed | Batch   | Notes |
|---------------------------------------|--------|--------------------|-----------|----------|-----------|--------------------------------------|----------|---------|-------|
| <b>1B South Dup (P2H0254-06) Soil</b> |        |                    |           |          |           | Sampled: 08/12/02 Received: 08/12/02 |          | R-05    |       |
| Naphthalene                           | ND     | 67.0               | ug/kg dry | 5        | EPA 8270m | 08/14/02                             | 08/20/02 | 2080453 |       |
| Phenanthrene                          | 113    | 67.0               | "         | "        | "         | "                                    | "        | "       |       |
| Pyrene                                | 255    | 67.0               | "         | "        | "         | "                                    | "        | "       |       |
| Surr: Fluorene-d10                    | 41.6 % | 40-150             |           |          |           |                                      |          |         |       |
| Surr: Pyrene-d10                      | 64.7 % | 40-150             |           |          |           |                                      |          |         |       |
| Surr: Benzo (a) pyrene-d12            | 48.6 % | 40-150             |           |          |           |                                      |          |         |       |

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POPT1S603072





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Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Levi Fernandez

Reported:  
08/26/02 18:01

**Percent Dry Weight (Solids) per Standard Methods**  
**North Creek Analytical - Portland**

| Analyte   | Result | Reporting<br>Limit | Units       | Dilution | Method  | Prepared | Analyzed | Batch   | Notes |
|---|--------|--------------------|-------------|----------|---------|----------|----------|---------|-------|
| <b>1N (P2H0254-01) Soil</b> <span style="float: right;">Sampled: 08/12/02 Received: 08/12/02</span>           |        |                    |             |          |         |          |          |         |       |
| % Solids  | 87.7   | 1.00               | % by Weight | 1        | NCA SOP | 08/12/02 | 08/13/02 | 2080387 |       |
| <b>1W (P2H0254-02) Soil</b> <span style="float: right;">Sampled: 08/12/02 Received: 08/12/02</span>           |        |                    |             |          |         |          |          |         |       |
| % Solids  | 75.5   | 1.00               | % by Weight | 1        | NCA SOP | 08/12/02 | 08/13/02 | 2080387 |       |
| <b>1B North (P2H0254-03) Soil</b> <span style="float: right;">Sampled: 08/12/02 Received: 08/12/02</span>     |        |                    |             |          |         |          |          |         |       |
| % Solids  | 91.2   | 1.00               | % by Weight | 1        | NCA SOP | 08/12/02 | 08/13/02 | 2080387 |       |
| <b>1E (P2H0254-04) Soil</b> <span style="float: right;">Sampled: 08/12/02 Received: 08/12/02</span>           |        |                    |             |          |         |          |          |         |       |
| % Solids  | 86.0   | 1.00               | % by Weight | 1        | NCA SOP | 08/12/02 | 08/13/02 | 2080387 |       |
| <b>1B South (P2H0254-05) Soil</b> <span style="float: right;">Sampled: 08/12/02 Received: 08/12/02</span>     |        |                    |             |          |         |          |          |         |       |
| % Solids  | 89.1   | 1.00               | % by Weight | 1        | NCA SOP | 08/12/02 | 08/13/02 | 2080387 |       |
| <b>1B South Dup (P2H0254-06) Soil</b> <span style="float: right;">Sampled: 08/12/02 Received: 08/12/02</span> |        |                    |             |          |         |          |          |         |       |
| % Solids  | 89.2   | 1.00               | % by Weight | 1        | NCA SOP | 08/12/02 | 08/13/02 | 2080387 |       |

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POPT1S603073



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Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Levi Fernandez

Reported:  
08/27/02 15:49

#### ANALYTICAL REPORT FOR SAMPLES

| Sample ID | Laboratory ID | Matrix | Date Sampled   | Date Received  |
|-----------|---------------|--------|----------------|----------------|
| 6N        | P2H0609-01    | Soil   | 08/22/02 15:13 | 08/22/02 16:30 |
| 6W        | P2H0609-02    | Soil   | 08/22/02 15:09 | 08/22/02 16:30 |
| 6E        | P2H0609-03    | Soil   | 08/22/02 15:06 | 08/22/02 16:30 |
| 6S        | P2H0609-04    | Soil   | 08/22/02 15:19 | 08/22/02 16:30 |
| 6B        | P2H0609-05    | Soil   | 08/22/02 13:10 | 08/22/02 16:30 |
| 1N2       | P2H0609-06    | Soil   | 08/22/02 13:42 | 08/22/02 16:30 |
| 1E2       | P2H0609-07    | Soil   | 08/22/02 13:38 | 08/22/02 16:30 |
| 6N Dup    | P2H0609-08    | Soil   | 08/22/02 15:13 | 08/22/02 16:30 |
| 1W2 Brown | P2H0609-09    | Soil   | 08/22/02 14:48 | 08/22/02 16:30 |
| 1W2 Grey  | P2H0609-10    | Soil   | 08/22/02 14:48 | 08/22/02 16:30 |

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Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Levi Fernandez

Reported:  
08/27/02 15:49

**Diesel and Heavy Range Hydrocarbons per NWTPH-Dx Method**  
**North Creek Analytical - Portland**

| Analyte  | Result | Reporting Limit | Units     | Dilution | Method   | Prepared | Analyzed | Batch   | Notes |
|--|--------|-----------------|-----------|----------|----------|----------|----------|---------|-------|
| <b>6N (P2H0609-01) Soil</b> <span style="float: right;">Sampled: 08/22/02 Received: 08/22/02</span>  |        |                 |           |          |          |          |          |         |       |
| Diesel Range Organics  | ND     | 25.0            | mg/kg dry | 1        | NWTPH-Dx | 08/23/02 | 08/23/02 | 2080832 |       |
| Heavy Oil Range Hydrocarbons   | ND     | 50.0            | "         | "        | "        | "        | "        | "       |       |
| Surr: 1-Chlorooctadecane   | 92.1 % | 50-150          |           |          |          |          |          |         |       |
| <b>6W (P2H0609-02) Soil</b> <span style="float: right;">Sampled: 08/22/02 Received: 08/22/02</span>  |        |                 |           |          |          |          |          |         |       |
| Diesel Range Organics  | ND     | 25.0            | mg/kg dry | 1        | NWTPH-Dx | 08/23/02 | 08/23/02 | 2080832 |       |
| Heavy Oil Range Hydrocarbons   | ND     | 50.0            | "         | "        | "        | "        | "        | "       |       |
| Surr: 1-Chlorooctadecane   | 95.0 % | 50-150          |           |          |          |          |          |         |       |
| <b>6E (P2H0609-03) Soil</b> <span style="float: right;">Sampled: 08/22/02 Received: 08/22/02</span>  |        |                 |           |          |          |          |          |         |       |
| Diesel Range Organics  | ND     | 25.0            | mg/kg dry | 1        | NWTPH-Dx | 08/23/02 | 08/23/02 | 2080832 |       |
| Heavy Oil Range Hydrocarbons   | ND     | 50.0            | "         | "        | "        | "        | "        | "       |       |
| Surr: 1-Chlorooctadecane   | 93.5 % | 50-150          |           |          |          |          |          |         |       |
| <b>6S (P2H0609-04) Soil</b> <span style="float: right;">Sampled: 08/22/02 Received: 08/22/02</span>  |        |                 |           |          |          |          |          |         |       |
| Diesel Range Organics  | ND     | 25.0            | mg/kg dry | 1        | NWTPH-Dx | 08/23/02 | 08/23/02 | 2080832 |       |
| Heavy Oil Range Hydrocarbons   | ND     | 50.0            | "         | "        | "        | "        | "        | "       |       |
| Surr: 1-Chlorooctadecane   | 92.1 % | 50-150          |           |          |          |          |          |         |       |
| <b>6B (P2H0609-05) Soil</b> <span style="float: right;">Sampled: 08/22/02 Received: 08/22/02</span>  |        |                 |           |          |          |          |          |         |       |
| Diesel Range Organics  | 25.8   | 25.0            | mg/kg dry | 1        | NWTPH-Dx | 08/23/02 | 08/23/02 | 2080832 | A-01  |
| Heavy Oil Range Hydrocarbons   | 88.4   | 50.0            | "         | "        | "        | "        | "        | "       |       |
| Surr: 1-Chlorooctadecane   | 86.0 % | 50-150          |           |          |          |          |          |         |       |
| <b>1N2 (P2H0609-06) Soil</b> <span style="float: right;">Sampled: 08/22/02 Received: 08/22/02</span> |        |                 |           |          |          |          |          |         |       |
| Diesel Range Organics  | ND     | 25.0            | mg/kg dry | 1        | NWTPH-Dx | 08/23/02 | 08/23/02 | 2080832 |       |
| Heavy Oil Range Hydrocarbons   | ND     | 50.0            | "         | "        | "        | "        | "        | "       |       |
| Surr: 1-Chlorooctadecane   | 91.4 % | 50-150          |           |          |          |          |          |         |       |

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POPT1S603083



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Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Levi Fernandez

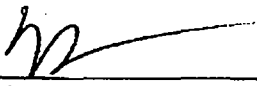
Reported:  
08/27/02 15:49

**Diesel and Heavy Range Hydrocarbons per NWTPH-Dx Method**  
**North Creek Analytical - Portland**

| Analyte                            | Result | Reporting Limit | Units     | Dilution | Method   | Prepared                             | Analyzed | Batch   | Notes |
|------------------------------------|--------|-----------------|-----------|----------|----------|--------------------------------------|----------|---------|-------|
| <b>1E2 (P2H0609-07) Soil</b>       |        |                 |           |          |          | Sampled: 08/22/02 Received: 08/22/02 |          |         |       |
| Diesel Range Organics              | ND     | 25.0            | mg/kg dry | 1        | NWTPH-Dx | 08/23/02                             | 08/23/02 | 2080832 |       |
| Heavy Oil Range Hydrocarbons       | ND     | 50.0            | "         | "        | "        | "                                    | "        | "       |       |
| Surr: 1-Chlorooctadecane           | 87.3 % | 50-150          |           |          |          |                                      |          |         |       |
| <b>6N Dup (P2H0609-08) Soil</b>    |        |                 |           |          |          | Sampled: 08/22/02 Received: 08/22/02 |          |         |       |
| Diesel Range Organics              | ND     | 25.0            | mg/kg dry | 1        | NWTPH-Dx | 08/23/02                             | 08/23/02 | 2080832 |       |
| Heavy Oil Range Hydrocarbons       | ND     | 50.0            | "         | "        | "        | "                                    | "        | "       |       |
| Surr: 1-Chlorooctadecane           | 82.4 % | 50-150          |           |          |          |                                      |          |         |       |
| <b>1W2 Brown (P2H0609-09) Soil</b> |        |                 |           |          |          | Sampled: 08/22/02 Received: 08/22/02 |          |         |       |
| Diesel Range Organics              | ND     | 25.0            | mg/kg dry | 1        | NWTPH-Dx | 08/23/02                             | 08/23/02 | 2080832 |       |
| Heavy Oil Range Hydrocarbons       | ND     | 50.0            | "         | "        | "        | "                                    | "        | "       |       |
| Surr: 1-Chlorooctadecane           | 88.8 % | 50-150          |           |          |          |                                      |          |         |       |
| <b>1W2 Grey (P2H0609-10) Soil</b>  |        |                 |           |          |          | Sampled: 08/22/02 Received: 08/22/02 |          |         |       |
| Diesel Range Organics              | 138    | 25.0            | mg/kg dry | 1        | NWTPH-Dx | 08/23/02                             | 08/23/02 | 2080832 | A-01  |
| Heavy Oil Range Hydrocarbons       | 448    | 50.0            | "         | "        | "        | "                                    | "        | "       |       |
| Surr: 1-Chlorooctadecane           | 138 %  | 50-150          |           |          |          |                                      |          |         |       |

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POPT1S603084



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Hart Crowser  
Five Centerpointe Drive  
Lake Oswego, OR 97035

Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Levi Fernandez

Reported:  
08/27/02 15:49

**Percent Dry Weight (Solids) per Standard Methods**  
**North Creek Analytical - Portland**

| Analyte                            | Result | Reporting Limit | Units       | Dilution | Method  | Prepared                             | Analyzed | Batch   | Notes |
|------------------------------------|--------|-----------------|-------------|----------|---------|--------------------------------------|----------|---------|-------|
| <b>6N (P2H0609-01) Soil</b>        |        |                 |             |          |         | Sampled: 08/22/02 Received: 08/22/02 |          |         |       |
| % Solids                           | 94.9   | 1.00            | % by Weight | 1        | NCA SOP | 08/23/02                             | 08/26/02 | 2080863 |       |
| <b>6W (P2H0609-02) Soil</b>        |        |                 |             |          |         | Sampled: 08/22/02 Received: 08/22/02 |          |         |       |
| % Solids                           | 92.0   | 1.00            | % by Weight | 1        | NCA SOP | 08/23/02                             | 08/26/02 | 2080863 |       |
| <b>6E (P2H0609-03) Soil</b>        |        |                 |             |          |         | Sampled: 08/22/02 Received: 08/22/02 |          |         |       |
| % Solids                           | 95.1   | 1.00            | % by Weight | 1        | NCA SOP | 08/23/02                             | 08/26/02 | 2080863 |       |
| <b>6S (P2H0609-04) Soil</b>        |        |                 |             |          |         | Sampled: 08/22/02 Received: 08/22/02 |          |         |       |
| % Solids                           | 95.2   | 1.00            | % by Weight | 1        | NCA SOP | 08/23/02                             | 08/26/02 | 2080863 |       |
| <b>6B (P2H0609-05) Soil</b>        |        |                 |             |          |         | Sampled: 08/22/02 Received: 08/22/02 |          |         |       |
| % Solids                           | 93.4   | 1.00            | % by Weight | 1        | NCA SOP | 08/23/02                             | 08/26/02 | 2080863 |       |
| <b>1N2 (P2H0609-06) Soil</b>       |        |                 |             |          |         | Sampled: 08/22/02 Received: 08/22/02 |          |         |       |
| % Solids                           | 91.2   | 1.00            | % by Weight | 1        | NCA SOP | 08/23/02                             | 08/26/02 | 2080863 |       |
| <b>1E2 (P2H0609-07) Soil</b>       |        |                 |             |          |         | Sampled: 08/22/02 Received: 08/22/02 |          |         |       |
| % Solids                           | 91.1   | 1.00            | % by Weight | 1        | NCA SOP | 08/23/02                             | 08/26/02 | 2080863 |       |
| <b>6N Dup (P2H0609-08) Soil</b>    |        |                 |             |          |         | Sampled: 08/22/02 Received: 08/22/02 |          |         |       |
| % Solids                           | 94.8   | 1.00            | % by Weight | 1        | NCA SOP | 08/23/02                             | 08/26/02 | 2080863 |       |
| <b>1W2 Brown (P2H0609-09) Soil</b> |        |                 |             |          |         | Sampled: 08/22/02 Received: 08/22/02 |          |         |       |
| % Solids                           | 90.9   | 1.00            | % by Weight | 1        | NCA SOP | 08/23/02                             | 08/26/02 | 2080863 |       |

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Hart Crowser  
Five Centerpointe Drive  
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Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Levi Fernandez

Reported:  
08/27/02 15:49

**Percent Dry Weight (Solids) per Standard Methods**  
**North Creek Analytical - Portland**

| Analyte                    | Result | Reporting<br>Limit | Units       | Dilution | Method  | Prepared                             | Analyzed | Batch   | Notes |
|----------------------------|--------|--------------------|-------------|----------|---------|--------------------------------------|----------|---------|-------|
| 1W2 Grey (P2H0609-10) Soil |        |                    |             |          |         | Sampled: 08/22/02 Received: 08/22/02 |          |         |       |
| % Solids                   | 66.3   | 1.00               | % by Weight | 1        | NCA SOP | 08/23/02                             | 08/26/02 | 2080863 |       |

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Lisa Domenighini, Project Manager

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Hart Crowser  
Five Centerpointe Drive  
Lake Oswego, OR 97035

Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Levi Fernandez

Reported:  
08/27/02 15:49

**Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring**  
**North Creek Analytical - Spokane**

| Analyte                     | Result | Reporting Limit | Units     | Dilution | Method        | Prepared                             | Analyzed | Batch   | Notes |
|-----------------------------|--------|-----------------|-----------|----------|---------------|--------------------------------------|----------|---------|-------|
| <b>6B (P2H0609-05) Soil</b> |        |                 |           |          |               | Sampled: 08/22/02 Received: 08/22/02 |          |         |       |
| Naphthalene                 | ND     | 0.0100          | mg/kg dry | 1        | EPA 8270 mod. | 08/23/02                             | 08/23/02 | 2080077 |       |
| Acenaphthylene              | ND     | 0.0100          | "         | "        | "             | "                                    | "        | "       |       |
| Acenaphthene                | ND     | 0.0100          | "         | "        | "             | "                                    | "        | "       |       |
| Fluorene                    | ND     | 0.0100          | "         | "        | "             | "                                    | "        | "       |       |
| Phenanthrene                | 0.0160 | 0.0100          | "         | "        | "             | "                                    | "        | "       |       |
| Anthracene                  | ND     | 0.0100          | "         | "        | "             | "                                    | "        | "       |       |
| Fluoranthene                | 0.0382 | 0.0100          | "         | "        | "             | "                                    | "        | "       |       |
| Pyrene                      | 0.0486 | 0.0100          | "         | "        | "             | "                                    | "        | "       |       |
| Benzo (a) anthracene        | 0.0243 | 0.0100          | "         | "        | "             | "                                    | "        | "       |       |
| Chrysene                    | 0.0250 | 0.0100          | "         | "        | "             | "                                    | "        | "       |       |
| Benzo (b) fluoranthene      | 0.0181 | 0.0100          | "         | "        | "             | "                                    | "        | "       |       |
| Benzo (k) fluoranthene      | 0.0188 | 0.0100          | "         | "        | "             | "                                    | "        | "       |       |
| Benzo (a) pyrene            | 0.0250 | 0.0100          | "         | "        | "             | "                                    | "        | "       |       |
| Dibenzo (a,h) anthracene    | ND     | 0.0100          | "         | "        | "             | "                                    | "        | "       |       |
| Indeno (1,2,3-cd) pyrene    | 0.0146 | 0.0100          | "         | "        | "             | "                                    | "        | "       |       |
| Benzo (ghi) perylene        | 0.0194 | 0.0100          | "         | "        | "             | "                                    | "        | "       |       |
| Surr: Nitrobenzene-d5       | 87.6 % | 30.9-139        |           |          |               |                                      |          |         |       |
| Surr: 2-FBP                 | 84.1 % | 27.1-135        |           |          |               |                                      |          |         |       |
| Surr: p-Terphenyl-d14       | 79.3 % | 52.4-135        |           |          |               |                                      |          |         |       |

|                              |        |          |           |   |               |                                      |          |         |  |
|------------------------------|--------|----------|-----------|---|---------------|--------------------------------------|----------|---------|--|
| <b>1N2 (P2H0609-06) Soil</b> |        |          |           |   |               | Sampled: 08/22/02 Received: 08/22/02 |          |         |  |
| Naphthalene                  | ND     | 0.0100   | mg/kg dry | 1 | EPA 8270 mod. | 08/23/02                             | 08/23/02 | 2080077 |  |
| Acenaphthylene               | ND     | 0.0100   | "         | " | "             | "                                    | "        | "       |  |
| Acenaphthene                 | ND     | 0.0100   | "         | " | "             | "                                    | "        | "       |  |
| Fluorene                     | ND     | 0.0100   | "         | " | "             | "                                    | "        | "       |  |
| Phenanthrene                 | ND     | 0.0100   | "         | " | "             | "                                    | "        | "       |  |
| Anthracene                   | ND     | 0.0100   | "         | " | "             | "                                    | "        | "       |  |
| Fluoranthene                 | ND     | 0.0100   | "         | " | "             | "                                    | "        | "       |  |
| Pyrene                       | 0.0102 | 0.0100   | "         | " | "             | "                                    | "        | "       |  |
| Benzo (a) anthracene         | ND     | 0.0100   | "         | " | "             | "                                    | "        | "       |  |
| Chrysene                     | ND     | 0.0100   | "         | " | "             | "                                    | "        | "       |  |
| Benzo (b) fluoranthene       | ND     | 0.0100   | "         | " | "             | "                                    | "        | "       |  |
| Benzo (k) fluoranthene       | ND     | 0.0100   | "         | " | "             | "                                    | "        | "       |  |
| Benzo (a) pyrene             | ND     | 0.0100   | "         | " | "             | "                                    | "        | "       |  |
| Dibenzo (a,h) anthracene     | ND     | 0.0100   | "         | " | "             | "                                    | "        | "       |  |
| Indeno (1,2,3-cd) pyrene     | ND     | 0.0100   | "         | " | "             | "                                    | "        | "       |  |
| Benzo (ghi) perylene         | ND     | 0.0100   | "         | " | "             | "                                    | "        | "       |  |
| Surr: Nitrobenzene-d5        | 83.6 % | 30.9-139 |           |   |               |                                      |          |         |  |

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POPT1S603087



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Hart Crowser  
Five Centerpointe Drive  
Lake Oswego, OR 97035

Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Levi Fernandez

Reported:  
08/27/02 15:49

**Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring**  
**North Creek Analytical - Spokane**

| Analyte | Result | Reporting Limit | Units | Dilution | Method | Prepared | Analyzed | Batch | Notes |
|---------|--------|-----------------|-------|----------|--------|----------|----------|-------|-------|
|---------|--------|-----------------|-------|----------|--------|----------|----------|-------|-------|

**1N2 (P2H0609-06) Soil**

Sampled: 08/22/02 Received: 08/22/02

Surr: 2-FBP 85.5 % 27.1-135  
Surr: p-Terphenyl-d14 83.8 % 52.4-135

**1E2 (P2H0609-07) Soil**

Sampled: 08/22/02 Received: 08/22/02

|                          |        |          |           |   |               |          |          |         |
|--------------------------|--------|----------|-----------|---|---------------|----------|----------|---------|
| Naphthalene              | ND     | 0.0100   | mg/kg dry | 1 | EPA 8270 mod. | 08/23/02 | 08/23/02 | 2080077 |
| Acenaphthylene           | ND     | 0.0100   | "         | " | "             | "        | "        | "       |
| Acenaphthene             | ND     | 0.0100   | "         | " | "             | "        | "        | "       |
| Fluorene                 | ND     | 0.0100   | "         | " | "             | "        | "        | "       |
| Phenanthrene             | ND     | 0.0100   | "         | " | "             | "        | "        | "       |
| Anthracene               | ND     | 0.0100   | "         | " | "             | "        | "        | "       |
| Fluoranthene             | ND     | 0.0100   | "         | " | "             | "        | "        | "       |
| Pyrene                   | ND     | 0.0100   | "         | " | "             | "        | "        | "       |
| Benzo (a) anthracene     | ND     | 0.0100   | "         | " | "             | "        | "        | "       |
| Chrysene                 | ND     | 0.0100   | "         | " | "             | "        | "        | "       |
| Benzo (b) fluoranthene   | ND     | 0.0100   | "         | " | "             | "        | "        | "       |
| Benzo (k) fluoranthene   | ND     | 0.0100   | "         | " | "             | "        | "        | "       |
| Benzo (a) pyrene         | ND     | 0.0100   | "         | " | "             | "        | "        | "       |
| Dibenzo (a,h) anthracene | ND     | 0.0100   | "         | " | "             | "        | "        | "       |
| Indeno (1,2,3-cd) pyrene | ND     | 0.0100   | "         | " | "             | "        | "        | "       |
| Benzo (ghi) perylene     | ND     | 0.0100   | "         | " | "             | "        | "        | "       |
| Surr: Nitrobenzene-d5    | 87.1 % | 30.9-139 |           |   |               |          |          |         |
| Surr: 2-FBP              | 85.7 % | 27.1-135 |           |   |               |          |          |         |
| Surr: p-Terphenyl-d14    | 83.0 % | 52.4-135 |           |   |               |          |          |         |

**1W2 Brown (P2H0609-09) Soil**

Sampled: 08/22/02 Received: 08/22/02

|                        |        |        |           |   |               |          |          |         |
|------------------------|--------|--------|-----------|---|---------------|----------|----------|---------|
| Naphthalene            | ND     | 0.0100 | mg/kg dry | 1 | EPA 8270 mod. | 08/23/02 | 08/23/02 | 2080077 |
| Acenaphthylene         | ND     | 0.0100 | "         | " | "             | "        | "        | "       |
| Acenaphthene           | ND     | 0.0100 | "         | " | "             | "        | "        | "       |
| Fluorene               | ND     | 0.0100 | "         | " | "             | "        | "        | "       |
| Phenanthrene           | 0.0363 | 0.0100 | "         | " | "             | "        | "        | "       |
| Anthracene             | ND     | 0.0100 | "         | " | "             | "        | "        | "       |
| Fluoranthene           | 0.0497 | 0.0100 | "         | " | "             | "        | "        | "       |
| Pyrene                 | 0.0667 | 0.0100 | "         | " | "             | "        | "        | "       |
| Benzo (a) anthracene   | 0.0252 | 0.0100 | "         | " | "             | "        | "        | "       |
| Chrysene               | 0.0304 | 0.0100 | "         | " | "             | "        | "        | "       |
| Benzo (b) fluoranthene | 0.0200 | 0.0100 | "         | " | "             | "        | "        | "       |
| Benzo (k) fluoranthene | 0.0230 | 0.0100 | "         | " | "             | "        | "        | "       |
| Benzo (a) pyrene       | 0.0400 | 0.0100 | "         | " | "             | "        | "        | "       |

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Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Levi Fernandez

Reported:  
08/27/02 15:49

**Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring**  
**North Creek Analytical - Spokane**

| Analyte                            | Result | Reporting Limit | Units     | Dilution | Method                               | Prepared | Analyzed | Batch   | Notes |
|------------------------------------|--------|-----------------|-----------|----------|--------------------------------------|----------|----------|---------|-------|
| <b>1W2 Brown (P2H0609-09) Soil</b> |        |                 |           |          | Sampled: 08/22/02 Received: 08/22/02 |          |          |         |       |
| Dibenzo (a,h) anthracene           | ND     | 0.0100          | mg/kg dry | 1        | EPA 8270 mod.                        | 08/23/02 | 08/23/02 | 2080077 |       |
| Indeno (1,2,3-cd) pyrene           | 0.0274 | 0.0100          | "         | "        | "                                    | "        | "        | "       |       |
| Benzo (ghi) perylene               | 0.0415 | 0.0100          | "         | "        | "                                    | "        | "        | "       |       |
| Surr: Nitrobenzene-d5              | 83.8 % | 30.9-139        |           |          |                                      |          |          |         |       |
| Surr: 2-FBP                        | 85.7 % | 27.1-135        |           |          |                                      |          |          |         |       |
| Surr: p-Terphenyl-d14              | 75.2 % | 52.4-135        |           |          |                                      |          |          |         |       |
| <b>1W2 Grey (P2H0609-10) Soil</b>  |        |                 |           |          | Sampled: 08/22/02 Received: 08/22/02 |          |          |         |       |
| Naphthalene                        | 0.0114 | 0.0100          | mg/kg dry | 1        | EPA 8270 mod.                        | 08/23/02 | 08/23/02 | 2080077 |       |
| Acenaphthylene                     | 0.0171 | 0.0100          | "         | "        | "                                    | "        | "        | "       |       |
| Acenaphthene                       | ND     | 0.0100          | "         | "        | "                                    | "        | "        | "       |       |
| Fluorene                           | ND     | 0.0100          | "         | "        | "                                    | "        | "        | "       |       |
| Phenanthrene                       | 0.0465 | 0.0100          | "         | "        | "                                    | "        | "        | "       |       |
| Anthracene                         | 0.0209 | 0.0100          | "         | "        | "                                    | "        | "        | "       |       |
| Fluoranthene                       | 0.179  | 0.0100          | "         | "        | "                                    | "        | "        | "       |       |
| Pyrene                             | 0.207  | 0.0100          | "         | "        | "                                    | "        | "        | "       |       |
| Benzo (a) anthracene               | 0.142  | 0.0100          | "         | "        | "                                    | "        | "        | "       |       |
| Chrysene                           | 0.127  | 0.0100          | "         | "        | "                                    | "        | "        | "       |       |
| Benzo (b) fluoranthene             | 0.0798 | 0.0100          | "         | "        | "                                    | "        | "        | "       |       |
| Benzo (k) fluoranthene             | 0.0940 | 0.0100          | "         | "        | "                                    | "        | "        | "       |       |
| Benzo (a) pyrene                   | 0.141  | 0.0100          | "         | "        | "                                    | "        | "        | "       |       |
| Dibenzo (a,h) anthracene           | 0.0199 | 0.0100          | "         | "        | "                                    | "        | "        | "       |       |
| Indeno (1,2,3-cd) pyrene           | 0.0598 | 0.0100          | "         | "        | "                                    | "        | "        | "       |       |
| Benzo (ghi) perylene               | 0.0693 | 0.0100          | "         | "        | "                                    | "        | "        | "       |       |
| Surr: Nitrobenzene-d5              | 77.5 % | 30.9-139        |           |          |                                      |          |          |         |       |
| Surr: 2-FBP                        | 73.1 % | 27.1-135        |           |          |                                      |          |          |         |       |
| Surr: p-Terphenyl-d14              | 72.4 % | 52.4-135        |           |          |                                      |          |          |         |       |

North Creek Analytical - Portland

Lisa Domenighini, Project Manager

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POPT1S603089



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Hart Crowser  
Five Centerpointe Drive  
Lake Oswego, OR 97035

Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Levi Fernandez

Reported:  
08/27/02 15:49

**Conventional Chemistry Parameters by APHA/EPA Methods**  
**North Creek Analytical - Spokane**

| Analyte                            | Result | Reporting<br>Limit | Units       | Dilution | Method     | Prepared                             | Analyzed | Batch   | Notes |
|------------------------------------|--------|--------------------|-------------|----------|------------|--------------------------------------|----------|---------|-------|
| <b>6B (P2H0609-05) Soil</b>        |        |                    |             |          |            | Sampled: 08/22/02 Received: 08/22/02 |          |         |       |
| % Solids                           | 96.0   | 0.0100             | % by Weight | 1        | Gravimetry | 08/26/02                             | 08/26/02 | 2080082 |       |
| <b>1N2 (P2H0609-06) Soil</b>       |        |                    |             |          |            | Sampled: 08/22/02 Received: 08/22/02 |          |         |       |
| % Solids                           | 91.2   | 0.0100             | % by Weight | 1        | Gravimetry | 08/26/02                             | 08/26/02 | 2080082 |       |
| <b>1E2 (P2H0609-07) Soil</b>       |        |                    |             |          |            | Sampled: 08/22/02 Received: 08/22/02 |          |         |       |
| % Solids                           | 91.5   | 0.0100             | % by Weight | 1        | Gravimetry | 08/26/02                             | 08/26/02 | 2080082 |       |
| <b>1W2 Brown (P2H0609-09) Soil</b> |        |                    |             |          |            | Sampled: 08/22/02 Received: 08/22/02 |          |         |       |
| % Solids                           | 89.9   | 0.0100             | % by Weight | 1        | Gravimetry | 08/26/02                             | 08/26/02 | 2080082 |       |
| <b>1W2 Grey (P2H0609-10) Soil</b>  |        |                    |             |          |            | Sampled: 08/22/02 Received: 08/22/02 |          |         |       |
| % Solids                           | 70.2   | 0.0100             | % by Weight | 1        | Gravimetry | 08/26/02                             | 08/26/02 | 2080082 |       |

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POPT1S603090



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Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Levi Fernandez

Reported:  
08/27/02 15:49

**Diesel and Heavy Range Hydrocarbons per NWTPH-Dx Method - Quality Control**

**North Creek Analytical - Portland**

| Analyte | Result | Reporting<br>Limit | Units | Spike<br>Level | Source<br>Result | %REC | %REC<br>Limits | RPD | RPD<br>Limit | Notes |
|---------|--------|--------------------|-------|----------------|------------------|------|----------------|-----|--------------|-------|
|---------|--------|--------------------|-------|----------------|------------------|------|----------------|-----|--------------|-------|

**Batch 2080832 - EPA 3550 Fuels**

**Blank (2080832-BLK1)**

Prepared & Analyzed: 08/23/02

|                              |      |      |       |      |  |      |        |  |  |  |
|------------------------------|------|------|-------|------|--|------|--------|--|--|--|
| Diesel Range Organics        | ND   | 25.0 | mg/kg |      |  |      |        |  |  |  |
| Heavy Oil Range Hydrocarbons | ND   | 50.0 | "     |      |  |      |        |  |  |  |
| Surr: 1-Chlorooctadecane     | 4.49 |      | "     | 4.80 |  | 93.5 | 50-150 |  |  |  |

**LCS (2080832-BS1)**

Prepared & Analyzed: 08/23/02

|                              |      |      |       |      |  |      |        |  |  |  |
|------------------------------|------|------|-------|------|--|------|--------|--|--|--|
| Diesel Range Organics        | 105  | 25.0 | mg/kg | 125  |  | 84.0 | 50-150 |  |  |  |
| Heavy Oil Range Hydrocarbons | 73.5 | 50.0 | "     | 75.0 |  | 98.0 | 50-150 |  |  |  |
| Surr: 1-Chlorooctadecane     | 5.12 |      | "     | 4.80 |  | 107  | 50-150 |  |  |  |

**Duplicate (2080832-DUP1)**

Source: P2H0609-01

Prepared & Analyzed: 08/23/02

|                              |      |      |           |      |    |      |        |  |    |  |
|------------------------------|------|------|-----------|------|----|------|--------|--|----|--|
| Diesel Range Organics        | ND   | 25.0 | mg/kg dry |      | ND |      |        |  | 50 |  |
| Heavy Oil Range Hydrocarbons | ND   | 50.0 | "         |      | ND |      |        |  | 50 |  |
| Surr: 1-Chlorooctadecane     | 4.86 |      | "         | 5.06 |    | 96.0 | 50-150 |  |    |  |

**Duplicate (2080832-DUP2)**

Source: P2H0612-01

Prepared & Analyzed: 08/23/02

|                              |      |      |           |      |    |      |        |  |    |  |
|------------------------------|------|------|-----------|------|----|------|--------|--|----|--|
| Diesel Range Organics        | ND   | 25.0 | mg/kg dry |      | ND |      |        |  | 50 |  |
| Heavy Oil Range Hydrocarbons | ND   | 50.0 | "         |      | ND |      |        |  | 50 |  |
| Surr: 1-Chlorooctadecane     | 4.32 |      | "         | 5.47 |    | 79.0 | 50-150 |  |    |  |

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POPT1S603091



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Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Levi Fernandez

Reported:  
08/27/02 15:49

Percent Dry Weight (Solids) per Standard Methods - Quality Control

North Creek Analytical - Portland

| Analyte                           | Result                    | Reporting<br>Limit | Units  | Spike<br>Level | Source<br>Result | %REC<br>Limits | RPD   | RPD<br>Limit | Notes |
|-----------------------------------|---------------------------|--------------------|--|----------------|------------------|----------------|-------|--------------|-------|
| <b>Batch 2080863 - Dry Weight</b> |                           |                    |  |                |                  |                |       |              |       |
| <b>Duplicate (2080863-DUP1)</b>   | <b>Source: P2H0567-01</b> |                    | <b>Prepared: 08/23/02 Analyzed: 08/26/02</b> |                |                  |                |       |              |       |
| % Solids                          | 94.1                      | 1.00 % by Weight   |  |                | 94.2             |                | 0.106 | 20           |       |
| <b>Duplicate (2080863-DUP2)</b>   | <b>Source: P2H0589-01</b> |                    | <b>Prepared: 08/23/02 Analyzed: 08/26/02</b> |                |                  |                |       |              |       |
| % Solids                          | 75.4                      | 1.00 % by Weight   |  |                | 76.4             |                | 1.32  | 20           |       |
| <b>Duplicate (2080863-DUP3)</b>   | <b>Source: P2H0590-01</b> |                    | <b>Prepared: 08/23/02 Analyzed: 08/26/02</b> |                |                  |                |       |              |       |
| % Solids                          | 84.7                      | 1.00 % by Weight   |  |                | 85.2             |                | 0.589 | 20           |       |
| <b>Duplicate (2080863-DUP4)</b>   | <b>Source: P2H0591-01</b> |                    | <b>Prepared: 08/23/02 Analyzed: 08/26/02</b> |                |                  |                |       |              |       |
| % Solids                          | 78.7                      | 1.00 % by Weight   |  |                | 77.7             |                | 1.28  | 20           |       |
| <b>Duplicate (2080863-DUP5)</b>   | <b>Source: P2H0601-01</b> |                    | <b>Prepared: 08/23/02 Analyzed: 08/26/02</b> |                |                  |                |       |              |       |
| % Solids                          | 87.6                      | 1.00 % by Weight   |  |                | 87.3             |                | 0.343 | 20           |       |
| <b>Duplicate (2080863-DUP6)</b>   | <b>Source: P2H0607-01</b> |                    | <b>Prepared: 08/23/02 Analyzed: 08/26/02</b> |                |                  |                |       |              |       |
| % Solids                          | 72.5                      | 1.00 % by Weight   |  |                | 74.2             |                | 2.32  | 20           |       |
| <b>Duplicate (2080863-DUP7)</b>   | <b>Source: P2H0609-01</b> |                    | <b>Prepared: 08/23/02 Analyzed: 08/26/02</b> |                |                  |                |       |              |       |
| % Solids                          | 94.6                      | 1.00 % by Weight   |  |                | 94.9             |                | 0.317 | 20           |       |

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POPT1S603092



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Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Levi Fernandez

Reported:  
08/27/02 15:49

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring - Quality Control

North Creek Analytical - Spokane

| Analyte | Result | Reporting<br>Limit | Units | Spike<br>Level | Source<br>Result | %REC | %REC<br>Limits | RPD | RPD<br>Limit | Notes |
|---------|--------|--------------------|-------|----------------|------------------|------|----------------|-----|--------------|-------|
|---------|--------|--------------------|-------|----------------|------------------|------|----------------|-----|--------------|-------|

Batch 2080077 - EPA 3550B

Blank (2080077-BLK1)

Prepared & Analyzed: 08/23/02

|                          |       |        |       |       |  |      |          |  |  |  |
|--------------------------|-------|--------|-------|-------|--|------|----------|--|--|--|
| Naphthalene              | ND    | 0.0100 | mg/kg |       |  |      |          |  |  |  |
| Acenaphthylene           | ND    | 0.0100 | "     |       |  |      |          |  |  |  |
| Acenaphthene             | ND    | 0.0100 | "     |       |  |      |          |  |  |  |
| Fluorene                 | ND    | 0.0100 | "     |       |  |      |          |  |  |  |
| Phenanthrene             | ND    | 0.0100 | "     |       |  |      |          |  |  |  |
| Anthracene               | ND    | 0.0100 | "     |       |  |      |          |  |  |  |
| Fluoranthene             | ND    | 0.0100 | "     |       |  |      |          |  |  |  |
| Pyrene                   | ND    | 0.0100 | "     |       |  |      |          |  |  |  |
| Benzo (a) anthracene     | ND    | 0.0100 | "     |       |  |      |          |  |  |  |
| Chrysene                 | ND    | 0.0100 | "     |       |  |      |          |  |  |  |
| Benzo (b) fluoranthene   | ND    | 0.0100 | "     |       |  |      |          |  |  |  |
| Benzo (k) fluoranthene   | ND    | 0.0100 | "     |       |  |      |          |  |  |  |
| Benzo (a) pyrene         | ND    | 0.0100 | "     |       |  |      |          |  |  |  |
| Dibenzo (a,h) anthracene | ND    | 0.0100 | "     |       |  |      |          |  |  |  |
| Indeno (1,2,3-cd) pyrene | ND    | 0.0100 | "     |       |  |      |          |  |  |  |
| Benzo (ghi) perylene     | ND    | 0.0100 | "     |       |  |      |          |  |  |  |
| Surr: Nitrobenzene-d5    | 0.290 |        | "     | 0.333 |  | 87.1 | 30.9-139 |  |  |  |
| Surr: 2-FBP              | 0.285 |        | "     | 0.333 |  | 85.6 | 27.1-135 |  |  |  |
| Surr: p-Terphenyl-d14    | 0.257 |        | "     | 0.333 |  | 77.2 | 52.4-135 |  |  |  |

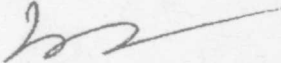
LCS (2080077-BS1)

Prepared & Analyzed: 08/23/02

|                          |       |        |       |       |  |      |          |  |  |  |
|--------------------------|-------|--------|-------|-------|--|------|----------|--|--|--|
| Naphthalene              | 0.123 | 0.0100 | mg/kg | 0.167 |  | 73.7 | 57.3-135 |  |  |  |
| Fluorene                 | 0.129 | 0.0100 | "     | 0.167 |  | 77.2 | 47.6-135 |  |  |  |
| Chrysene                 | 0.123 | 0.0100 | "     | 0.167 |  | 73.7 | 38.5-135 |  |  |  |
| Indeno (1,2,3-cd) pyrene | 0.117 | 0.0100 | "     | 0.167 |  | 70.1 | 37.8-135 |  |  |  |
| Surr: Nitrobenzene-d5    | 0.269 |        | "     | 0.333 |  | 80.8 | 30.9-139 |  |  |  |
| Surr: 2-FBP              | 0.267 |        | "     | 0.333 |  | 80.2 | 27.1-135 |  |  |  |
| Surr: p-Terphenyl-d14    | 0.250 |        | "     | 0.333 |  | 75.1 | 52.4-135 |  |  |  |

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POPT1S603093





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Hart Crowser  
Five Centerpointe Drive  
Lake Oswego, OR 97035

Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Levi Fernandez

Reported:  
08/27/02 15:49

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring - Quality Control

North Creek Analytical - Spokane

| Analyte | Result | Reporting<br>Limit | Units | Spike<br>Level | Source<br>Result | %REC | %REC<br>Limits | RPD | RPD<br>Limit | Notes |
|---------|--------|--------------------|-------|----------------|------------------|------|----------------|-----|--------------|-------|
|---------|--------|--------------------|-------|----------------|------------------|------|----------------|-----|--------------|-------|

Batch 2080077 - EPA 3550B

Duplicate (2080077-DUP1)

Source: P2H0609-05

Prepared & Analyzed: 08/23/02

|                          |        |        |           |       |        |      |          |      |    |      |
|--------------------------|--------|--------|-----------|-------|--------|------|----------|------|----|------|
| Naphthalene              | ND     | 0.0100 | mg/kg dry |       | ND     |      |          | 66.7 | 20 | Q-07 |
| Acenaphthylene           | ND     | 0.0100 | "         |       | ND     |      |          | 75.1 | 20 | Q-07 |
| Acenaphthene             | ND     | 0.0100 | "         |       | ND     |      |          | 85.6 | 20 | Q-07 |
| Fluorene                 | ND     | 0.0100 | "         |       | ND     |      |          |      | 20 |      |
| Phenanthrene             | 0.0618 | 0.0100 | "         |       | 0.0160 |      |          | 118  | 20 | Q-07 |
| Anthracene               | 0.0174 | 0.0100 | "         |       | ND     |      |          | 123  | 20 | Q-07 |
| Fluoranthene             | 0.113  | 0.0100 | "         |       | 0.0382 |      |          | 98.9 | 20 | Q-07 |
| Pyrene                   | 0.123  | 0.0100 | "         |       | 0.0486 |      |          | 86.7 | 20 | Q-07 |
| Benzo (a) anthracene     | 0.0701 | 0.0100 | "         |       | 0.0243 |      |          | 97.0 | 20 | Q-07 |
| Chrysene                 | 0.0653 | 0.0100 | "         |       | 0.0250 |      |          | 89.3 | 20 | Q-07 |
| Benzo (b) fluoranthene   | 0.0431 | 0.0100 | "         |       | 0.0181 |      |          | 81.7 | 20 | Q-07 |
| Benzo (k) fluoranthene   | 0.0465 | 0.0100 | "         |       | 0.0188 |      |          | 84.8 | 20 | Q-07 |
| Benzo (a) pyrene         | 0.0597 | 0.0100 | "         |       | 0.0250 |      |          | 81.9 | 20 | Q-07 |
| Dibenzo (a,h) anthracene | ND     | 0.0100 | "         |       | ND     |      |          | 66.7 | 20 | Q-07 |
| Indeno (1,2,3-cd) pyrene | 0.0299 | 0.0100 | "         |       | 0.0146 |      |          | 68.8 | 20 | Q-07 |
| Benzo (ghi) perylene     | 0.0354 | 0.0100 | "         |       | 0.0194 |      |          | 58.4 | 20 | Q-07 |
| Surr: Nitrobenzene-d5    | 0.303  |        | "         | 0.347 |        | 87.3 | 30.9-139 |      |    |      |
| Surr: 2-FBP              | 0.291  |        | "         | 0.347 |        | 83.9 | 27.1-135 |      |    |      |
| Surr: p-Terphenyl-d14    | 0.272  |        | "         | 0.347 |        | 78.4 | 52.4-135 |      |    |      |

Matrix Spike (2080077-MS1)

Source: P2H0609-06

Prepared & Analyzed: 08/23/02

|                          |       |        |           |       |    |      |          |  |  |  |
|--------------------------|-------|--------|-----------|-------|----|------|----------|--|--|--|
| Naphthalene              | 0.129 | 0.0100 | mg/kg dry | 0.183 | ND | 70.5 | 57.3-135 |  |  |  |
| Fluorene                 | 0.146 | 0.0100 | "         | 0.183 | ND | 79.8 | 47.6-135 |  |  |  |
| Chrysene                 | 0.140 | 0.0100 | "         | 0.183 | ND | 72.9 | 38.5-135 |  |  |  |
| Indeno (1,2,3-cd) pyrene | 0.140 | 0.0100 | "         | 0.183 | ND | 74.5 | 37.8-135 |  |  |  |
| Surr: Nitrobenzene-d5    | 0.298 |        | "         | 0.365 |    | 81.6 | 30.9-139 |  |  |  |
| Surr: 2-FBP              | 0.305 |        | "         | 0.365 |    | 83.6 | 27.1-135 |  |  |  |
| Surr: p-Terphenyl-d14    | 0.270 |        | "         | 0.365 |    | 74.0 | 52.4-135 |  |  |  |

North Creek Analytical - Portland

Lisa Domenighini, Project Manager

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POPT1S603094



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Hart Crowser  
Five Centerpointe Drive  
Lake Oswego, OR 97035

Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Levi Fernandez

Reported:  
08/27/02 15:49

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring - Quality Control

North Creek Analytical - Spokane

| Analyte | Result | Reporting<br>Limit | Units | Spike<br>Level | Source<br>Result | %REC | %REC<br>Limits | RPD | RPD<br>Limit | Notes |
|---------|--------|--------------------|-------|----------------|------------------|------|----------------|-----|--------------|-------|
|---------|--------|--------------------|-------|----------------|------------------|------|----------------|-----|--------------|-------|

Batch 2080077 - EPA 3550B

Matrix Spike Dup (2080077-MSD1)

Source: P2H0609-06

Prepared & Analyzed: 08/23/02

|                          |       |        |           |       |    |      |          |      |    |  |
|--------------------------|-------|--------|-----------|-------|----|------|----------|------|----|--|
| Naphthalene              | 0.133 | 0.0100 | mg/kg dry | 0.183 | ND | 72.7 | 57.3-135 | 3.05 | 25 |  |
| Fluorene                 | 0.143 | 0.0100 | "         | 0.183 | ND | 78.1 | 47.6-135 | 2.08 | 25 |  |
| Chrysene                 | 0.137 | 0.0100 | "         | 0.183 | ND | 71.3 | 38.5-135 | 2.17 | 25 |  |
| Indeno (1,2,3-cd) pyrene | 0.143 | 0.0100 | "         | 0.183 | ND | 76.1 | 37.8-135 | 2.12 | 25 |  |
| Surr: Nitrobenzene-d5    | 0.303 |        | "         | 0.365 |    | 83.0 | 30.9-139 |      |    |  |
| Surr: 2-FBP              | 0.297 |        | "         | 0.365 |    | 81.4 | 27.1-135 |      |    |  |
| Surr: p-Terphenyl-d14    | 0.268 |        | "         | 0.365 |    | 73.4 | 52.4-135 |      |    |  |

North Creek Analytical - Portland

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POPT1S603095



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Lake Oswego, OR 97035

Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Levi Fernandez

Reported:  
08/27/02 15:49

#### Notes and Definitions

- A-01 Detected hydrocarbons appear to be due mainly to overlap from the heavy/oil range; however, there is weathered diesel detected as well.
- Q-07 The RPD value for this QC sample is outside the advisory limit established by NCA. Additional sources for assessment of method precision, such as field duplicates, should be referenced.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis. MRLs are adjusted if %Solids are less than 50%.
- wet Sample results reported on a wet weight basis (as received)
- RPD Relative Percent Difference

North Creek Analytical - Portland

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

  
Lisa Domenighini, Project Manager

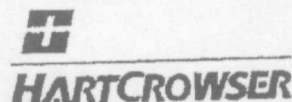
North Creek Analytical, Inc.  
Environmental Laboratory Network

15 of 15

POPT1S603096



Samples Shipped to: NCA



**FRH0609**  
Hart Crows  
Five Centerpointe Drive, Suite  
Lake Oswego, OR 97035-86  
Phone: 503-620-7284 FAX: 503-6206914

| LAB NO. |  | SAMPLE ID |  | DESCRIPTION |  | DATE  |  | TIME |  | MATRIX |  | REQUESTED ANALYSES |  | OBSERVATIONS/COMMENTS/COMPOSING INSTRUCTIONS |  |
|---------|--|-----------|--|-------------|--|-------|--|------|--|--------|--|--------------------|--|--|--|
|         |  | 6N        |  | 8/22/02     |  | 15:13 |  | Soil |  | X      |  |                    |  | 2 48 hour TAT                                |  |
|         |  | 6W        |  |             |  | 15:09 |  |      |  | X      |  |                    |  | 2 on all samples                             |  |
|         |  | 6E        |  |             |  | 15:06 |  |      |  | X      |  |                    |  | 2 except sample                              |  |
|         |  | 6S        |  |             |  | 15:19 |  |      |  | X      |  |                    |  | 2 "6B"                                       |  |
|         |  | 6B        |  |             |  | 13:10 |  |      |  | X X    |  |                    |  | 2  |  |
|         |  | 1W2       |  |             |  | 13:42 |  |      |  | X X    |  |                    |  | 2  |  |
|         |  | 1E2       |  |             |  | 13:38 |  |      |  | X X    |  |                    |  | 2  |  |
|         |  | 6N Dup    |  |             |  | 15:13 |  |      |  | X      |  |                    |  | 2  |  |
|         |  | 1W2 Brown |  |             |  | 14:48 |  |      |  | X X    |  |                    |  | 2  |  |
|         |  | 1W2 Grey  |  |             |  | 14:49 |  |      |  | X X    |  |                    |  | 2  |  |

| RELINQUISHED BY |  | DATE    |  | RECEIVED BY     |  | DATE  |  | SPECIAL SHIPMENT/HANDLING OR STORAGE REQUIREMENTS: |  | TOTAL NUMBER OF CONTAINERS |  |
|-----------------|--|---------|--|-----------------|--|-------|--|--|--|----------------------------|--|
| L. L. L.        |  | 8/22/02 |  | C. L. L.        |  | 8/22  |  | CC-client  |  | 20                         |  |
| SIGNATURE       |  | TIME    |  | SIGNATURE       |  | TIME  |  | COOLER NO.:  |  | SHIPMENT METHOD:           |  |
| Levi Fernandez  |  | 16:30   |  | Callie Fansholz |  | 16:30 |  | See Lab Work Order No.                             |  | SHIPMENT METHOD:           |  |
| Hart Crouser    |  |         |  | NCA             |  |       |  | for Other Contract Requirements                    |  | SHIPMENT METHOD:           |  |
| COMPANY         |  |         |  | L.B.            |  |       |  |  |  | SHIPMENT METHOD:           |  |

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| SIGNATURE       |  | TIME    |  | SIGNATURE       |  | TIME  |  | COOLER NO.:  |  | SHIPMENT METHOD:           |  |
| Levi Fernandez  |  | 16:30   |  | Callie Fansholz |  | 16:30 |  | See Lab Work Order No.                             |  | SHIPMENT METHOD:           |  |
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| COMPANY         |  |         |  | L.B.            |  |       |  |  |  | SHIPMENT METHOD:           |  |

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| SIGNATURE       |  | TIME    |  | SIGNATURE       |  | TIME  |  | COOLER NO.:  |  | SHIPMENT METHOD:           |  |
| Levi Fernandez  |  | 16:30   |  | Callie Fansholz |  | 16:30 |  | See Lab Work Order No.                             |  | SHIPMENT METHOD:           |  |
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| COMPANY         |  |         |  | L.B.            |  |       |  |  |  | SHIPMENT METHOD:           |  |

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| SIGNATURE       |  | TIME    |  | SIGNATURE       |  | TIME  |  | COOLER NO.:  |  | SHIPMENT METHOD:           |  |
| Levi Fernandez  |  | 16:30   |  | Callie Fansholz |  | 16:30 |  | See Lab Work Order No.                             |  | SHIPMENT METHOD:           |  |
| Hart Crouser    |  |         |  | NCA             |  |       |  | for Other Contract Requirements                    |  | SHIPMENT METHOD:           |  |
| COMPANY         |  |         |  | L.B.            |  |       |  |  |  | SHIPMENT METHOD:           |  |

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| Hart Crouser    |  |         |  | NCA             |  |       |  | for Other Contract Requirements                    |  | SHIPMENT METHOD:           |  |
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| L. L. L.        |  | 8/22/02 |  | C. L. L.    |  | 8/22 |  | CC-client  |  | 20                         |  |

White and Yellow Copies to Lab

## Pink to Project Manager

Lab to Return White Copy to Hart Crowder

POP T1S603097



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503.906.9200 fax 503.906.9210  
Bend 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711  
541.383.9310 fax 541.382.7588

Hart Crowser  
Five Centerpointe Drive  
Lake Oswego, OR 97035

Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Herb Clough

Reported:  
09/03/02 14:38

#### ANALYTICAL REPORT FOR SAMPLES

| Sample ID     | Laboratory ID | Matrix | Date Sampled   | Date Received  |
|---------------|---------------|--------|----------------|----------------|
| T1-3SE2 (0-3) | P2H0744-01    | Soil   | 08/27/02 12:30 | 08/27/02 13:15 |

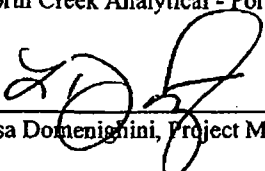
HART CROWSER, INC.

SEP 10 2002

Portland Office

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Lisa Domenighini, Project Manager

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Environmental Laboratory Network

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POPT1S603098



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Reported:  
09/03/02 14:38

**Semivolatile Petroleum Products by NWTPH-Dx**  
**North Creek Analytical - Spokane**

| Analyte                                | Result        | Reporting<br>Limit | Units     | Dilution | Method   | Prepared                             | Analyzed | Batch   | Notes |
|--|---------------|--------------------|-----------|----------|----------|--------------------------------------|----------|---------|-------|
| <b>T1-3SE2 (0-3) (P2H0744-01) Soil</b> |               |                    |           |          |          | Sampled: 08/27/02 Received: 08/27/02 |          |         |       |
| <b>Diesel Range Hydrocarbons</b>       | <b>31.8</b>   | <b>10.0</b>        | mg/kg dry | 1        | NWTPH-Dx | 08/28/02                             | 08/29/02 | 2080097 |       |
| <b>Lube Oil</b>                        | <b>148</b>    | <b>25.0</b>        | "         | "        | "        | "                                    | "        | "       |       |
| <i>Surr: 2-FBP</i>                     | <i>97.4 %</i> | <i>50-150</i>      |           |          |          |                                      |          |         |       |
| <i>Surr: p-Terphenyl-d14</i>           | <i>108 %</i>  | <i>50-150</i>      |           |          |          |                                      |          |         |       |

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Lisa Domenighini, Project Manager

**North Creek Analytical, Inc.**  
**Environmental Laboratory Network**

2 of 8

POPT1S603099



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Hart Crowser  
Five Centerpointe Drive  
Lake Oswego, OR 97035

Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Herb Clough

Reported:  
09/03/02 14:38

**Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring**  
**North Creek Analytical - Spokane**

| Analyte                                | Result | Reporting<br>Limit | Units     | Dilution | Method        | Prepared                             | Analyzed | Batch   | Notes |
|--|--------|--------------------|-----------|----------|---------------|--------------------------------------|----------|---------|-------|
| <b>T1-3SE2 (0-3) (P2H0744-01) Soil</b> |        |                    |           |          |               | Sampled: 08/27/02 Received: 08/27/02 |          |         |       |
| Naphthalene                            | ND     | 0.0100             | mg/kg dry | 1        | EPA 8270 mod. | 08/28/02                             | 08/29/02 | 2080098 |       |
| Acenaphthylene                         | 0.0147 | 0.0100             | "         | "        | "             | "                                    | "        | "       |       |
| Acenaphthene                           | ND     | 0.0100             | "         | "        | "             | "                                    | "        | "       |       |
| Fluorene                               | ND     | 0.0100             | "         | "        | "             | "                                    | "        | "       |       |
| Phenanthrene                           | 0.108  | 0.0100             | "         | "        | "             | "                                    | "        | "       |       |
| Anthracene                             | 0.0330 | 0.0100             | "         | "        | "             | "                                    | "        | "       |       |
| Fluoranthene                           | 0.191  | 0.0100             | "         | "        | "             | "                                    | "        | "       |       |
| Pyrene                                 | 0.281  | 0.0100             | "         | "        | "             | "                                    | "        | "       |       |
| Benzo (a) anthracene                   | 0.127  | 0.0100             | "         | "        | "             | "                                    | "        | "       |       |
| Chrysene                               | 0.137  | 0.0100             | "         | "        | "             | "                                    | "        | "       |       |
| Benzo (b) fluoranthene                 | 0.116  | 0.0100             | "         | "        | "             | "                                    | "        | "       |       |
| Benzo (k) fluoranthene                 | 0.117  | 0.0100             | "         | "        | "             | "                                    | "        | "       |       |
| Benzo (a) pyrene                       | 0.210  | 0.0100             | "         | "        | "             | "                                    | "        | "       |       |
| Dibenzo (a,h) anthracene               | 0.0396 | 0.0100             | "         | "        | "             | "                                    | "        | "       |       |
| Indeno (1,2,3-cd) pyrene               | 0.115  | 0.0100             | "         | "        | "             | "                                    | "        | "       |       |
| Benzo (ghi) perylene                   | 0.173  | 0.0100             | "         | "        | "             | "                                    | "        | "       |       |
| Surr: Nitrobenzene-d5                  | 46.7 % | 30.9-139           |           |          |               |                                      |          |         |       |
| Surr: 2-FBP                            | 45.6 % | 27.1-135           |           |          |               |                                      |          |         |       |
| Surr: p-Terphenyl-d14                  | 40.2 % | 52.4-135           |           |          |               |                                      |          |         |       |

S-05

North Creek Analytical - Portland

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Environmental Laboratory Network

3 of 8

POPT1S603100



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Hart Crowser  
Five Centerpointe Drive  
Lake Oswego, OR 97035

Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Herb Clough

Reported:  
09/03/02 14:38

**Conventional Chemistry Parameters by APHA/EPA Methods**  
**North Creek Analytical - Spokane**

| Analyte                         | Result | Reporting<br>Limit | Units       | Dilution | Method     | Prepared                             | Analyzed | Batch   | Notes |
|---------------------------------|--------|--------------------|-------------|----------|------------|--------------------------------------|----------|---------|-------|
| T1-3SE2 (0-3) (P2H0744-01) Soil |        |                    |             |          |            | Sampled: 08/27/02 Received: 08/27/02 |          |         |       |
| % Solids                        | 91.0   | 0.0100             | % by Weight | 1        | Gravimetry | 08/29/02                             | 08/29/02 | 2080101 |       |

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Lisa Domenighini, Project Manager

**North Creek Analytical, Inc.**  
**Environmental Laboratory Network**

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POPT1S603101



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Five Centerpointe Drive  
Lake Oswego, OR 97035

Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Herb Clough

Reported:  
09/03/02 14:38

Semivolatile Petroleum Products by NWTPH-Dx - Quality Control

North Creek Analytical - Spokane

| Analyte                          | Result | Reporting<br>Limit | Units     | Spike<br>Level                | Source<br>Result | %REC<br>Limits                | RPD    | RPD<br>Limit | Notes |
|----------------------------------|--------|--------------------|-----------|-------------------------------|------------------|-------------------------------|--------|--------------|-------|
| <b>Batch 2080097 - EPA 3550B</b> |        |                    |           |                               |                  |                               |        |              |       |
| <b>Blank (2080097-BLK1)</b>      |        |                    |           | Prepared & Analyzed: 08/28/02 |                  |                               |        |              |       |
| Diesel Range Hydrocarbons        | ND     | 10.0               | mg/kg     |                               |                  |                               |        |              |       |
| Lube Oil                         | ND     | 25.0               | "         |                               |                  |                               |        |              |       |
| Surr: 2-FBP                      | 4.66   |                    | "         | 6.67                          |                  | 69.9                          | 50-150 |              |       |
| Surr: p-Terphenyl-d14            | 6.17   |                    | "         | 6.67                          |                  | 92.5                          | 50-150 |              |       |
| <b>LCS (2080097-BS1)</b>         |        |                    |           | Prepared & Analyzed: 08/28/02 |                  |                               |        |              |       |
| Diesel Range Hydrocarbons        | 87.3   | 10.0               | mg/kg     |                               |                  |                               | 50-150 |              |       |
| Surr: 2-FBP                      | 3.11   |                    | "         | 6.67                          |                  | 46.6                          | 50-150 |              | S-05  |
| Surr: p-Terphenyl-d14            | 6.40   |                    | "         | 6.67                          |                  | 96.0                          | 50-150 |              |       |
| <b>Duplicate (2080097-DUP1)</b>  |        |                    |           | Source: S208072-01            |                  | Prepared & Analyzed: 08/28/02 |        |              |       |
| Diesel Range Hydrocarbons        | ND     | 10.0               | mg/kg dry |                               | ND               |                               | 15.0   | 50           |       |
| Lube Oil                         | ND     | 25.0               | "         |                               | ND               |                               |        | 50           |       |
| Surr: 2-FBP                      | 3.21   |                    | "         | 8.37                          |                  | 38.4                          | 50-150 |              | S-05  |
| Surr: p-Terphenyl-d14            | 6.32   |                    | "         | 8.37                          |                  | 75.5                          | 50-150 |              |       |

North Creek Analytical - Portland

Lisa Domenighini, Project Manager

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Environmental Laboratory Network

5 of 8

POPT1S603102



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Hart Crowser  
Five Centerpointe Drive  
Lake Oswego, OR 97035

Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Herb Clough

Reported:  
09/03/02 14:38

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring - Quality Control

North Creek Analytical - Spokane

| Analyte | Result | Reporting<br>Limit | Units | Spike<br>Level | Source<br>Result | %REC | %REC<br>Limits | RPD | RPD<br>Limit | Notes |
|---------|--------|--------------------|-------|----------------|------------------|------|----------------|-----|--------------|-------|
|---------|--------|--------------------|-------|----------------|------------------|------|----------------|-----|--------------|-------|

Batch 2080098 - EPA 3550B

Blank (2080098-BLK1)

Prepared: 08/28/02 Analyzed: 08/29/02

|                          |       |        |       |       |  |      |          |  |  |      |
|--------------------------|-------|--------|-------|-------|--|------|----------|--|--|------|
| Naphthalene              | ND    | 0.0100 | mg/kg |       |  |      |          |  |  |      |
| Acenaphthylene           | ND    | 0.0100 | "     |       |  |      |          |  |  |      |
| Acenaphthene             | ND    | 0.0100 | "     |       |  |      |          |  |  |      |
| Fluorene                 | ND    | 0.0100 | "     |       |  |      |          |  |  |      |
| Phenanthrene             | ND    | 0.0100 | "     |       |  |      |          |  |  |      |
| Anthracene               | ND    | 0.0100 | "     |       |  |      |          |  |  |      |
| Fluoranthene             | ND    | 0.0100 | "     |       |  |      |          |  |  |      |
| Pyrene                   | ND    | 0.0100 | "     |       |  |      |          |  |  |      |
| Benzo (a) anthracene     | ND    | 0.0100 | "     |       |  |      |          |  |  |      |
| Chrysene                 | ND    | 0.0100 | "     |       |  |      |          |  |  |      |
| Benzo (b) fluoranthene   | ND    | 0.0100 | "     |       |  |      |          |  |  |      |
| Benzo (k) fluoranthene   | ND    | 0.0100 | "     |       |  |      |          |  |  |      |
| Benzo (a) pyrene         | ND    | 0.0100 | "     |       |  |      |          |  |  |      |
| Dibenzo (a,h) anthracene | ND    | 0.0100 | "     |       |  |      |          |  |  |      |
| Indeno (1,2,3-cd) pyrene | ND    | 0.0100 | "     |       |  |      |          |  |  |      |
| Benzo (ghi) perylene     | ND    | 0.0100 | "     |       |  |      |          |  |  |      |
| Surr: Nitrobenzene-d5    | 0.190 |        | "     | 0.333 |  | 57.1 | 30.9-139 |  |  |      |
| Surr: 2-FBP              | 0.185 |        | "     | 0.333 |  | 55.6 | 27.1-135 |  |  |      |
| Surr: p-Terphenyl-d14    | 0.174 |        | "     | 0.333 |  | 52.3 | 52.4-135 |  |  | S-01 |

LCS (2080098-BS1)

Prepared: 08/28/02 Analyzed: 08/29/02

|                          |        |        |       |       |  |      |          |  |  |      |
|--------------------------|--------|--------|-------|-------|--|------|----------|--|--|------|
| Naphthalene              | 0.0800 | 0.0100 | mg/kg | 0.167 |  | 47.9 | 57.3-135 |  |  | Q-01 |
| Fluorene                 | 0.0900 | 0.0100 | "     | 0.167 |  | 53.9 | 47.6-135 |  |  |      |
| Chrysene                 | 0.0760 | 0.0100 | "     | 0.167 |  | 45.5 | 38.5-135 |  |  |      |
| Indeno (1,2,3-cd) pyrene | 0.0573 | 0.0100 | "     | 0.167 |  | 34.3 | 37.8-135 |  |  | Q-01 |
| Surr: Nitrobenzene-d5    | 0.208  |        | "     | 0.333 |  | 62.5 | 30.9-139 |  |  |      |
| Surr: 2-FBP              | 0.191  |        | "     | 0.333 |  | 57.4 | 27.1-135 |  |  |      |
| Surr: p-Terphenyl-d14    | 0.181  |        | "     | 0.333 |  | 54.4 | 52.4-135 |  |  |      |

North Creek Analytical - Portland

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Lisa Domenighini, Project Manager

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POPT1S603103





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Hart Crowser  
Five Centerpointe Drive  
Lake Oswego, OR 97035

Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Herb Clough

Reported:  
09/03/02 14:38

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring - Quality Control

North Creek Analytical - Spokane

| Analyte                         | Result | Reporting<br>Limit | Units     | Spike<br>Level     | Source<br>Result | %REC<br>Limits     | RPD      | RPD<br>Limit | Notes   |
|---------------------------------|--------|--------------------|-----------|--------------------|------------------|--------------------|----------|--------------|---------|
| Batch 2080098 - EPA 3550B       |        |                    |           |                    |                  |                    |          |              |         |
| Matrix Spike (2080098-MS1)      |        | Source: P2H0744-01 |           | Prepared: 08/28/02 |                  | Analyzed: 08/29/02 |          |              |         |
| Naphthalene                     | 0.135  | 0.0100             | mg/kg dry | 0.183              | ND               | 71.0               | 57.3-135 |              |         |
| Fluorene                        | 0.152  | 0.0100             | "         | 0.183              | ND               | 79.9               | 47.6-135 |              |         |
| Chrysene                        | 0.555  | 0.0100             | "         | 0.183              | 0.137            | 228                | 38.5-135 |              | Q-02    |
| Indeno (1,2,3-cd) pyrene        | 0.560  | 0.0100             | "         | 0.183              | 0.115            | 243                | 37.8-135 |              | Q-02    |
| Surr: Nitrobenzene-d5           | 0.242  |                    | "         | 0.366              |                  | 66.1               | 30.9-139 |              |         |
| Surr: 2-FBP                     | 0.237  |                    | "         | 0.366              |                  | 64.8               | 27.1-135 |              |         |
| Surr: p-Terphenyl-d14           | 0.223  |                    | "         | 0.366              |                  | 60.9               | 52.4-135 |              |         |
| Matrix Spike Dup (2080098-MSD1) |        | Source: P2H0744-01 |           | Prepared: 08/28/02 |                  | Analyzed: 08/29/02 |          |              |         |
| Naphthalene                     | 0.0821 | 0.0100             | mg/kg dry | 0.183              | ND               | 42.1               | 57.3-135 | 48.7         | 25 Q-02 |
| Fluorene                        | 0.101  | 0.0100             | "         | 0.183              | ND               | 52.0               | 47.6-135 | 40.3         | 25      |
| Chrysene                        | 0.234  | 0.0100             | "         | 0.183              | 0.137            | 53.0               | 38.5-135 | 81.4         | 25      |
| Indeno (1,2,3-cd) pyrene        | 0.166  | 0.0100             | "         | 0.183              | 0.115            | 27.9               | 37.8-135 | 109          | 25 Q-02 |
| Surr: Nitrobenzene-d5           | 0.193  |                    | "         | 0.366              |                  | 52.7               | 30.9-139 |              |         |
| Surr: 2-FBP                     | 0.184  |                    | "         | 0.366              |                  | 50.3               | 27.1-135 |              |         |
| Surr: p-Terphenyl-d14           | 0.170  |                    | "         | 0.366              |                  | 46.4               | 52.4-135 |              | S-05    |

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POPT1S603104





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Hart Crowser  
Five Centerpointe Drive  
Lake Oswego, OR 97035

Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Herb Clough

Reported:  
09/03/02 14:38

#### Notes and Definitions

- Q-01 The spike recovery for this QC sample is outside of NCA established control limits. Review of associated batch QC indicates the recovery for this analyte does not represent an out-of-control condition for the batch.
- Q-02 The spike recovery for this QC sample is outside of NCA established control limits due to sample matrix interference.
- S-05 The surrogate recovery for this sample is outside of NCA established control limits. The alternate surrogate has been used to validate the sample result.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis. MRLs are adjusted if %Solids are less than 50%.
- wet Sample results reported on a wet weight basis (as received)
- RPD Relative Percent Difference

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Lisa Domenighini, Project Manager

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POPT1S603105



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# CHAIN OF CUSTODY REPORT

Work Order #

P2H0744

| REPORT TO: <b>HERB CLOUGH</b>  |                     |                                     | INVOICE TO:  |                 |             |                              |                    |                                     |                         |                     |                              |    |  |  |    |  |  |    |   |     |    |   |          |    |  |  |                              |  |  |    |  |  |    |  |  |
|--|---------------------|-------------------------------------|--|-----------------|-------------|------------------------------|--------------------|-------------------------------------|-------------------------|---------------------|------------------------------|----|--|--|----|--|--|----|---|-----|----|---|----------|----|--|--|------------------------------|--|--|----|--|--|----|--|--|
| ATTENTION: <b>HART CROWSEN</b>   |                     |                                     | ATTENTION:   |                 |             |                              |                    |                                     |                         |                     |                              |    |  |  |    |  |  |    |   |     |    |   |          |    |  |  |                              |  |  |    |  |  |    |  |  |
| ADDRESS: <b>PO Box 100000, Des Moines, IA 50319</b>  |                     |                                     | ADDRESS:   |                 |             |                              |                    |                                     |                         |                     |                              |    |  |  |    |  |  |    |   |     |    |   |          |    |  |  |                              |  |  |    |  |  |    |  |  |
| PHONE: <b>503-620-7284</b> FAX: <b>503-620-6918</b>  |                     |                                     | P.O. NUMBER:   |                 |             |                              |                    |                                     |                         |                     |                              |    |  |  |    |  |  |    |   |     |    |   |          |    |  |  |                              |  |  |    |  |  |    |  |  |
| PROJECT NAME: <b>PDP-71</b>  |                     |                                     | NCA QUOTE #:   |                 |             |                              |                    |                                     |                         |                     |                              |    |  |  |    |  |  |    |   |     |    |   |          |    |  |  |                              |  |  |    |  |  |    |  |  |
| PROJECT NUMBER: <b>15230-04</b>  |                     |                                     | Analysis Request:  |                 |             |                              |                    |                                     |                         |                     |                              |    |  |  |    |  |  |    |   |     |    |   |          |    |  |  |                              |  |  |    |  |  |    |  |  |
| SAMPLED BY: <b>DOANN HAMZITON</b>  |                     |                                     | <div style="border: 1px solid black; padding: 5px; transform: rotate(-45deg); display: inline-block;"> TPH-DX<br/>PAH P2H0744 </div> |                 |             |                              |                    |                                     |                         |                     |                              |    |  |  |    |  |  |    |   |     |    |   |          |    |  |  |                              |  |  |    |  |  |    |  |  |
| <table border="1"> <thead> <tr> <th>CLIENT SAMPLE IDENTIFICATION</th> <th>SAMPLING DATE/TIME</th> <th>NCA SAMPLE ID (Laboratory Use Only)</th> </tr> </thead> <tbody> <tr> <td>1. <b>T1-3SE2 (0-3)</b></td> <td><b>8-27-02/1230</b></td> <td></td> </tr> <tr><td>2.</td><td></td><td></td></tr> <tr><td>3.</td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td></tr> <tr><td>5.</td><td></td><td></td></tr> <tr><td>6.</td><td></td><td></td></tr> <tr><td>7.</td><td></td><td></td></tr> <tr><td>8.</td><td></td><td></td></tr> <tr><td>9.</td><td></td><td></td></tr> <tr><td>10.</td><td></td><td></td></tr> </tbody> </table> |                     |                                     |  |                 |             | CLIENT SAMPLE IDENTIFICATION | SAMPLING DATE/TIME | NCA SAMPLE ID (Laboratory Use Only) | 1. <b>T1-3SE2 (0-3)</b> | <b>8-27-02/1230</b> |                              | 2. |  |  | 3. |  |  | 4. |   |     | 5. |   |          | 6. |  |  | 7.                           |  |  | 8. |  |  | 9. |  |  |
| CLIENT SAMPLE IDENTIFICATION   | SAMPLING DATE/TIME  | NCA SAMPLE ID (Laboratory Use Only) |  |                 |             |                              |                    |                                     |                         |                     |                              |    |  |  |    |  |  |    |   |     |    |   |          |    |  |  |                              |  |  |    |  |  |    |  |  |
| 1. <b>T1-3SE2 (0-3)</b>  | <b>8-27-02/1230</b> |                                     |  |                 |             |                              |                    |                                     |                         |                     |                              |    |  |  |    |  |  |    |   |     |    |   |          |    |  |  |                              |  |  |    |  |  |    |  |  |
| 2.   |                     |                                     |  |                 |             |                              |                    |                                     |                         |                     |                              |    |  |  |    |  |  |    |   |     |    |   |          |    |  |  |                              |  |  |    |  |  |    |  |  |
| 3.   |                     |                                     |  |                 |             |                              |                    |                                     |                         |                     |                              |    |  |  |    |  |  |    |   |     |    |   |          |    |  |  |                              |  |  |    |  |  |    |  |  |
| 4.   |                     |                                     |  |                 |             |                              |                    |                                     |                         |                     |                              |    |  |  |    |  |  |    |   |     |    |   |          |    |  |  |                              |  |  |    |  |  |    |  |  |
| 5.   |                     |                                     |  |                 |             |                              |                    |                                     |                         |                     |                              |    |  |  |    |  |  |    |   |     |    |   |          |    |  |  |                              |  |  |    |  |  |    |  |  |
| 6.   |                     |                                     |  |                 |             |                              |                    |                                     |                         |                     |                              |    |  |  |    |  |  |    |   |     |    |   |          |    |  |  |                              |  |  |    |  |  |    |  |  |
| 7.   |                     |                                     |  |                 |             |                              |                    |                                     |                         |                     |                              |    |  |  |    |  |  |    |   |     |    |   |          |    |  |  |                              |  |  |    |  |  |    |  |  |
| 8.   |                     |                                     |  |                 |             |                              |                    |                                     |                         |                     |                              |    |  |  |    |  |  |    |   |     |    |   |          |    |  |  |                              |  |  |    |  |  |    |  |  |
| 9.   |                     |                                     |  |                 |             |                              |                    |                                     |                         |                     |                              |    |  |  |    |  |  |    |   |     |    |   |          |    |  |  |                              |  |  |    |  |  |    |  |  |
| 10.  |                     |                                     |  |                 |             |                              |                    |                                     |                         |                     |                              |    |  |  |    |  |  |    |   |     |    |   |          |    |  |  |                              |  |  |    |  |  |    |  |  |
| <table border="1"> <thead> <tr> <th>MATRIX (W. S. A. O.)</th> <th># OF CONTAINERS</th> <th>COMMENTS</th> </tr> </thead> <tbody> <tr> <td><b>S</b></td> <td><b>2</b></td> <td></td> </tr> <tr><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td></tr> </tbody> </table>  |                     |                                     | MATRIX (W. S. A. O.)   | # OF CONTAINERS | COMMENTS    | <b>S</b>                     | <b>2</b>           |                                     |                         |                     |                              |    |  |  |    |  |  |    |   |     |    |   |          |    |  |  |                              |  |  |    |  |  |    |  |  |
| MATRIX (W. S. A. O.)   | # OF CONTAINERS     | COMMENTS                            |  |                 |             |                              |                    |                                     |                         |                     |                              |    |  |  |    |  |  |    |   |     |    |   |          |    |  |  |                              |  |  |    |  |  |    |  |  |
| <b>S</b>   | <b>2</b>            |                                     |  |                 |             |                              |                    |                                     |                         |                     |                              |    |  |  |    |  |  |    |   |     |    |   |          |    |  |  |                              |  |  |    |  |  |    |  |  |
|  |                     |                                     |  |                 |             |                              |                    |                                     |                         |                     |                              |    |  |  |    |  |  |    |   |     |    |   |          |    |  |  |                              |  |  |    |  |  |    |  |  |
|  |                     |                                     |  |                 |             |                              |                    |                                     |                         |                     |                              |    |  |  |    |  |  |    |   |     |    |   |          |    |  |  |                              |  |  |    |  |  |    |  |  |
|  |                     |                                     |  |                 |             |                              |                    |                                     |                         |                     |                              |    |  |  |    |  |  |    |   |     |    |   |          |    |  |  |                              |  |  |    |  |  |    |  |  |
|  |                     |                                     |  |                 |             |                              |                    |                                     |                         |                     |                              |    |  |  |    |  |  |    |   |     |    |   |          |    |  |  |                              |  |  |    |  |  |    |  |  |
|  |                     |                                     |  |                 |             |                              |                    |                                     |                         |                     |                              |    |  |  |    |  |  |    |   |     |    |   |          |    |  |  |                              |  |  |    |  |  |    |  |  |
|  |                     |                                     |  |                 |             |                              |                    |                                     |                         |                     |                              |    |  |  |    |  |  |    |   |     |    |   |          |    |  |  |                              |  |  |    |  |  |    |  |  |
|  |                     |                                     |  |                 |             |                              |                    |                                     |                         |                     |                              |    |  |  |    |  |  |    |   |     |    |   |          |    |  |  |                              |  |  |    |  |  |    |  |  |
|  |                     |                                     |  |                 |             |                              |                    |                                     |                         |                     |                              |    |  |  |    |  |  |    |   |     |    |   |          |    |  |  |                              |  |  |    |  |  |    |  |  |
|  |                     |                                     |  |                 |             |                              |                    |                                     |                         |                     |                              |    |  |  |    |  |  |    |   |     |    |   |          |    |  |  |                              |  |  |    |  |  |    |  |  |
| <b>TURNAROUND REQUEST in Business Days *</b><br><table border="1"> <tr> <td>10</td><td>7</td><td>5</td><td>4</td><td>3</td><td>2</td><td>1</td><td>Same Day</td> </tr> <tr> <td colspan="8">Organic &amp; Inorganic Analyses</td> </tr> <tr> <td>5</td><td>3-4</td><td>2</td><td>1</td><td>Same Day</td> <td colspan="3"></td> </tr> <tr> <td colspan="8">Fuels &amp; Hydrocarbon Analyses</td> </tr> </table>   |                     |                                     | 10   | 7               | 5           | 4                            | 3                  | 2                                   | 1                       | Same Day            | Organic & Inorganic Analyses |    |  |  |    |  |  |    | 5 | 3-4 | 2  | 1 | Same Day |    |  |  | Fuels & Hydrocarbon Analyses |  |  |    |  |  |    |  |  |
| 10   | 7                   | 5                                   | 4  | 3               | 2           | 1                            | Same Day           |                                     |                         |                     |                              |    |  |  |    |  |  |    |   |     |    |   |          |    |  |  |                              |  |  |    |  |  |    |  |  |
| Organic & Inorganic Analyses   |                     |                                     |  |                 |             |                              |                    |                                     |                         |                     |                              |    |  |  |    |  |  |    |   |     |    |   |          |    |  |  |                              |  |  |    |  |  |    |  |  |
| 5  | 3-4                 | 2                                   | 1  | Same Day        |             |                              |                    |                                     |                         |                     |                              |    |  |  |    |  |  |    |   |     |    |   |          |    |  |  |                              |  |  |    |  |  |    |  |  |
| Fuels & Hydrocarbon Analyses   |                     |                                     |  |                 |             |                              |                    |                                     |                         |                     |                              |    |  |  |    |  |  |    |   |     |    |   |          |    |  |  |                              |  |  |    |  |  |    |  |  |
| <b>OTHER</b> <b>1-DAY TAT</b><br><small>* Turnaround Requests less than standard may incur Rush Charges.</small>   |                     |                                     |  |                 |             |                              |                    |                                     |                         |                     |                              |    |  |  |    |  |  |    |   |     |    |   |          |    |  |  |                              |  |  |    |  |  |    |  |  |
| RELINQUISHED BY: <b>Doann Hamziton</b> DATE: <b>8-27-02</b>  |                     |                                     | RECEIVED BY: <b>Callie Farsholtz</b> DATE: <b>8/27/02</b>  |                 |             |                              |                    |                                     |                         |                     |                              |    |  |  |    |  |  |    |   |     |    |   |          |    |  |  |                              |  |  |    |  |  |    |  |  |
| PRINT NAME: <b>DOANN HAMZITON</b> FIRM: <b>HART CROWSEN</b> TIME: <b>1316</b>  |                     |                                     | PRINT NAME: <b>Callie Farsholtz</b> FIRM: <b>NCA</b> TIME: <b>1315</b>   |                 |             |                              |                    |                                     |                         |                     |                              |    |  |  |    |  |  |    |   |     |    |   |          |    |  |  |                              |  |  |    |  |  |    |  |  |
| RELINQUISHED BY: (Signature):  |                     |                                     | RECEIVED BY: (Signature):  |                 |             |                              |                    |                                     |                         |                     |                              |    |  |  |    |  |  |    |   |     |    |   |          |    |  |  |                              |  |  |    |  |  |    |  |  |
| DATE:  |                     |                                     | DATE:  |                 |             |                              |                    |                                     |                         |                     |                              |    |  |  |    |  |  |    |   |     |    |   |          |    |  |  |                              |  |  |    |  |  |    |  |  |
| PRINT NAME:  |                     |                                     | PRINT NAME:  |                 |             |                              |                    |                                     |                         |                     |                              |    |  |  |    |  |  |    |   |     |    |   |          |    |  |  |                              |  |  |    |  |  |    |  |  |
| FIRM:  |                     |                                     | FIRM:  |                 |             |                              |                    |                                     |                         |                     |                              |    |  |  |    |  |  |    |   |     |    |   |          |    |  |  |                              |  |  |    |  |  |    |  |  |
| TIME:  |                     |                                     | TIME:  |                 |             |                              |                    |                                     |                         |                     |                              |    |  |  |    |  |  |    |   |     |    |   |          |    |  |  |                              |  |  |    |  |  |    |  |  |
| ADDITIONAL REMARKS:  |                     |                                     |  |                 | PAGE 1 OF 1 |                              |                    |                                     |                         |                     |                              |    |  |  |    |  |  |    |   |     |    |   |          |    |  |  |                              |  |  |    |  |  |    |  |  |

cc: client 13.9'v



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Lake Oswego, OR 97035

Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Levi Fernandes

Reported:  
09/03/02 16:02

#### ANALYTICAL REPORT FOR SAMPLES

| Sample ID | Laboratory ID | Matrix | Date Sampled   | Date Received  |
|-----------|---------------|--------|----------------|----------------|
| TP #2     | P2H0837-01    | Soil   | 08/29/02 09:49 | 08/29/02 13:15 |
| TP #4     | P2H0837-02    | Soil   | 08/29/02 10:03 | 08/29/02 13:15 |

HART CROWSER, INC.

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POPT1S603107



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Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Levi Fernandes

Reported:  
09/03/02 16:02

**Semivolatile Petroleum Products by NWTPH-Dx**  
**North Creek Analytical - Spokane**

| Analyte | Result | Reporting<br>Limit | Units | Dilution | Method | Prepared | Analyzed | Batch | Notes |
|---------|--------|--------------------|-------|----------|--------|----------|----------|-------|-------|
|---------|--------|--------------------|-------|----------|--------|----------|----------|-------|-------|

**TP #2 (P2H0837-01) Soil**

Sampled: 08/29/02 Received: 08/29/02

|                           |        |        |           |   |          |          |          |         |  |
|---------------------------|--------|--------|-----------|---|----------|----------|----------|---------|--|
| Diesel Range Hydrocarbons | ND     | 10.0   | mg/kg dry | 1 | NWTPH-Dx | 08/30/02 | 09/03/02 | 2080107 |  |
| Lube Oil                  | ND     | 25.0   | "         | " | "        | "        | "        | "       |  |
| Surr: 2-FBP               | 78.2 % | 50-150 |           |   |          |          |          |         |  |
| Surr: p-Terphenyl-d14     | 86.6 % | 50-150 |           |   |          |          |          |         |  |

**TP #4 (P2H0837-02) Soil**

Sampled: 08/29/02 Received: 08/29/02

|                           |        |        |           |   |          |          |          |         |  |
|---------------------------|--------|--------|-----------|---|----------|----------|----------|---------|--|
| Diesel Range Hydrocarbons | 15.2   | 10.0   | mg/kg dry | 1 | NWTPH-Dx | 08/30/02 | 09/03/02 | 2080107 |  |
| Lube Oil                  | 27.3   | 25.0   | "         | " | "        | "        | "        | "       |  |
| Surr: 2-FBP               | 94.8 % | 50-150 |           |   |          |          |          |         |  |
| Surr: p-Terphenyl-d14     | 101 %  | 50-150 |           |   |          |          |          |         |  |

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Lisa Domenighini, Project Manager

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POPT1S603108



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Hart Crowser  
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Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Levi Fernandes

Reported:  
09/03/02 16:02

**Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring**  
**North Creek Analytical - Spokane**

| Analyte                        | Result | Reporting Limit | Units     | Dilution | Method        | Prepared                             | Analyzed | Batch   | Notes |
|--------------------------------|--------|-----------------|-----------|----------|---------------|--------------------------------------|----------|---------|-------|
| <b>TP #2 (P2H0837-01) Soil</b> |        |                 |           |          |               | Sampled: 08/29/02 Received: 08/29/02 |          |         |       |
| Naphthalene                    | ND     | 0.0100          | mg/kg dry | 1        | EPA 8270 mod. | 08/30/02                             | 09/03/02 | 2080108 |       |
| Acenaphthylene                 | ND     | 0.0100          | "         | "        | "             | "                                    | "        | "       |       |
| Acenaphthene                   | ND     | 0.0100          | "         | "        | "             | "                                    | "        | "       |       |
| Fluorene                       | ND     | 0.0100          | "         | "        | "             | "                                    | "        | "       |       |
| Phenanthrene                   | ND     | 0.0100          | "         | "        | "             | "                                    | "        | "       |       |
| Anthracene                     | ND     | 0.0100          | "         | "        | "             | "                                    | "        | "       |       |
| Fluoranthene                   | ND     | 0.0100          | "         | "        | "             | "                                    | "        | "       |       |
| Pyrene                         | ND     | 0.0100          | "         | "        | "             | "                                    | "        | "       |       |
| Benzo (a) anthracene           | ND     | 0.0100          | "         | "        | "             | "                                    | "        | "       |       |
| Chrysene                       | ND     | 0.0100          | "         | "        | "             | "                                    | "        | "       |       |
| Benzo (b) fluoranthene         | ND     | 0.0100          | "         | "        | "             | "                                    | "        | "       |       |
| Benzo (k) fluoranthene         | ND     | 0.0100          | "         | "        | "             | "                                    | "        | "       |       |
| Benzo (a) pyrene               | ND     | 0.0100          | "         | "        | "             | "                                    | "        | "       |       |
| Dibenzo (a,h) anthracene       | ND     | 0.0100          | "         | "        | "             | "                                    | "        | "       |       |
| Indeno (1,2,3-cd) pyrene       | ND     | 0.0100          | "         | "        | "             | "                                    | "        | "       |       |
| Benzo (ghi) perylene           | ND     | 0.0100          | "         | "        | "             | "                                    | "        | "       |       |
| Surr: Nitrobenzene-d5          | 29.0 % | 30.9-139        |           |          |               |                                      |          |         | S-05  |
| Surr: 2-FBP                    | 41.6 % | 27.1-135        |           |          |               |                                      |          |         |       |
| Surr: p-Terphenyl-d14          | 47.7 % | 52.4-135        |           |          |               |                                      |          |         | S-05  |

|                                |        |          |           |   |               |                                      |          |         |      |
|--------------------------------|--------|----------|-----------|---|---------------|--------------------------------------|----------|---------|------|
| <b>TP #4 (P2H0837-02) Soil</b> |        |          |           |   |               | Sampled: 08/29/02 Received: 08/29/02 |          |         |      |
| Naphthalene                    | 0.0127 | 0.0100   | mg/kg dry | 1 | EPA 8270 mod. | 08/30/02                             | 09/03/02 | 2080108 |      |
| Acenaphthylene                 | 0.0112 | 0.0100   | "         | " | "             | "                                    | "        | "       |      |
| Acenaphthene                   | ND     | 0.0100   | "         | " | "             | "                                    | "        | "       |      |
| Fluorene                       | ND     | 0.0100   | "         | " | "             | "                                    | "        | "       |      |
| Phenanthrene                   | 0.0366 | 0.0100   | "         | " | "             | "                                    | "        | "       |      |
| Anthracene                     | ND     | 0.0100   | "         | " | "             | "                                    | "        | "       |      |
| Fluoranthene                   | 0.0567 | 0.0100   | "         | " | "             | "                                    | "        | "       |      |
| Pyrene                         | 0.0709 | 0.0100   | "         | " | "             | "                                    | "        | "       |      |
| Benzo (a) anthracene           | 0.0358 | 0.0100   | "         | " | "             | "                                    | "        | "       |      |
| Chrysene                       | 0.0373 | 0.0100   | "         | " | "             | "                                    | "        | "       |      |
| Benzo (b) fluoranthene         | 0.0246 | 0.0100   | "         | " | "             | "                                    | "        | "       |      |
| Benzo (k) fluoranthene         | 0.0299 | 0.0100   | "         | " | "             | "                                    | "        | "       |      |
| Benzo (a) pyrene               | 0.0426 | 0.0100   | "         | " | "             | "                                    | "        | "       |      |
| Dibenzo (a,h) anthracene       | ND     | 0.0100   | "         | " | "             | "                                    | "        | "       |      |
| Indeno (1,2,3-cd) pyrene       | 0.0127 | 0.0100   | "         | " | "             | "                                    | "        | "       |      |
| Benzo (ghi) perylene           | 0.0142 | 0.0100   | "         | " | "             | "                                    | "        | "       |      |
| Surr: Nitrobenzene-d5          | 29.5 % | 30.9-139 |           |   |               |                                      |          |         | S-05 |

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*Lisa Domenighini*

Lisa Domenighini, Project Manager

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POPT1S603109



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Hart Crowser  
Five Centerpointe Drive  
Lake Oswego, OR 97035

Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Levi Fernandes

Reported:  
09/03/02 16:02

**Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring**  
**North Creek Analytical - Spokane**

| Analyte                 | Result | Reporting<br>Limit | Units | Dilution                             | Method | Prepared | Analyzed | Batch | Notes |
|-------------------------|--------|--------------------|-------|--------------------------------------|--------|----------|----------|-------|-------|
| TP #4 (P2H0837-02) Soil |        |                    |       | Sampled: 08/29/02 Received: 08/29/02 |        |          |          |       |       |
| Surr: 2-FBP             | 31.1 % | 27.1-135           |       |                                      |        |          |          |       |       |
| Surr: p-Terphenyl-d14   | 61.9 % | 52.4-135           |       |                                      |        |          |          |       |       |

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Lisa Domenighini, Project Manager

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POPT1S603110



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Five Centerpointe Drive  
Lake Oswego, OR 97035

Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Levi Fernandes

Reported:  
09/03/02 16:02

**Conventional Chemistry Parameters by APHA/EPA Methods**  
**North Creek Analytical - Spokane**

| Analyte                 | Result | Reporting<br>Limit | Units       | Dilution | Method     | Prepared                             | Analyzed | Batch   | Notes |
|-------------------------|--------|--------------------|-------------|----------|------------|--------------------------------------|----------|---------|-------|
| TP #2 (P2H0837-01) Soil |        |                    |             |          |            | Sampled: 08/29/02 Received: 08/29/02 |          |         |       |
| % Solids                | 91.4   | 0.0100             | % by Weight | 1        | Gravimetry | 09/03/02                             | 09/03/02 | 2090007 |       |
| TP #4 (P2H0837-02) Soil |        |                    |             |          |            | Sampled: 08/29/02 Received: 08/29/02 |          |         |       |
| % Solids                | 89.3   | 0.0100             | % by Weight | 1        | Gravimetry | 09/03/02                             | 09/03/02 | 2090007 |       |

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Lisa Domenighini, Project Manager

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POPT1S603111



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Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Levi Fernandes

Reported:  
09/03/02 16:02

Semivolatile Petroleum Products by NWLPH-Dx - Quality Control

North Creek Analytical - Spokane

| Analyte | Result | Reporting<br>Limit | Units | Spike<br>Level | Source<br>Result | %REC<br>Limits | RPD | RPD<br>Limit | Notes |
|---------|--------|--------------------|-------|----------------|------------------|----------------|-----|--------------|-------|
|---------|--------|--------------------|-------|----------------|------------------|----------------|-----|--------------|-------|

Batch 2080107 - EPA 3550B

Blank (2080107-BLK1)

Prepared: 08/30/02 Analyzed: 09/03/02

|                           |      |      |       |      |  |      |        |  |  |
|---------------------------|------|------|-------|------|--|------|--------|--|--|
| Diesel Range Hydrocarbons | ND   | 10.0 | mg/kg |      |  |      |        |  |  |
| Lube Oil                  | ND   | 25.0 | "     |      |  |      |        |  |  |
| Surr: 2-FBP               | 5.63 |      | "     | 6.67 |  | 84.4 | 50-150 |  |  |
| Surr: p-Terphenyl-d14     | 6.28 |      | "     | 6.67 |  | 94.2 | 50-150 |  |  |

LCS (2080107-BS1)

Prepared: 08/30/02 Analyzed: 09/03/02

|                           |      |      |       |      |  |      |        |  |  |
|---------------------------|------|------|-------|------|--|------|--------|--|--|
| Diesel Range Hydrocarbons | 89.1 | 10.0 | mg/kg | 83.3 |  | 107  | 50-150 |  |  |
| Surr: 2-FBP               | 5.98 |      | "     | 6.67 |  | 89.7 | 50-150 |  |  |
| Surr: p-Terphenyl-d14     | 5.78 |      | "     | 6.67 |  | 86.7 | 50-150 |  |  |

Duplicate (2080107-DUP1)

Source: P2H0837-01

Prepared: 08/30/02 Analyzed: 09/03/02

|                           |      |      |           |      |    |     |        |    |  |
|---------------------------|------|------|-----------|------|----|-----|--------|----|--|
| Diesel Range Hydrocarbons | 11.1 | 10.0 | mg/kg dry |      | ND |     | 88.5   | 50 |  |
| Lube Oil                  | ND   | 25.0 | "         |      | ND |     |        | 50 |  |
| Surr: 2-FBP               | 7.88 |      | "         | 7.30 |    | 108 | 50-150 |    |  |
| Surr: p-Terphenyl-d14     | 8.44 |      | "         | 7.30 |    | 116 | 50-150 |    |  |

Matrix Spike (2080107-MS1)

Source: P2H0837-01

Prepared: 08/30/02 Analyzed: 09/03/02

|                           |      |      |           |      |    |      |        |  |  |
|---------------------------|------|------|-----------|------|----|------|--------|--|--|
| Diesel Range Hydrocarbons | 109  | 10.0 | mg/kg dry | 91.2 | ND | 115  | 50-150 |  |  |
| Surr: 2-FBP               | 7.37 |      | "         | 7.30 |    | 101  | 50-150 |  |  |
| Surr: p-Terphenyl-d14     | 6.60 |      | "         | 7.30 |    | 90.4 | 50-150 |  |  |

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POPT1S603112





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Lake Oswego, OR 97035

Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Levi Fernandes

Reported:  
09/03/02 16:02

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring - Quality Control

North Creek Analytical - Spokane

| Analyte | Result | Reporting<br>Limit | Units | Spike<br>Level | Source<br>Result | %REC | %REC<br>Limits | RPD | RPD<br>Limit | Notes |
|---------|--------|--------------------|-------|----------------|------------------|------|----------------|-----|--------------|-------|
|---------|--------|--------------------|-------|----------------|------------------|------|----------------|-----|--------------|-------|

Batch 2080108 - EPA 3550B

Blank (2080108-BLK1)

Prepared: 08/30/02 Analyzed: 09/03/02

|                          |       |        |       |       |  |      |          |  |  |  |
|--------------------------|-------|--------|-------|-------|--|------|----------|--|--|--|
| Naphthalene              | ND    | 0.0100 | mg/kg |       |  |      |          |  |  |  |
| Acenaphthylene           | ND    | 0.0100 | "     |       |  |      |          |  |  |  |
| Acenaphthene             | ND    | 0.0100 | "     |       |  |      |          |  |  |  |
| Fluorene                 | ND    | 0.0100 | "     |       |  |      |          |  |  |  |
| Phenanthrene             | ND    | 0.0100 | "     |       |  |      |          |  |  |  |
| Anthracene               | ND    | 0.0100 | "     |       |  |      |          |  |  |  |
| Fluoranthene             | ND    | 0.0100 | "     |       |  |      |          |  |  |  |
| Pyrene                   | ND    | 0.0100 | "     |       |  |      |          |  |  |  |
| Benzo (a) anthracene     | ND    | 0.0100 | "     |       |  |      |          |  |  |  |
| Chrysene                 | ND    | 0.0100 | "     |       |  |      |          |  |  |  |
| Benzo (b) fluoranthene   | ND    | 0.0100 | "     |       |  |      |          |  |  |  |
| Benzo (k) fluoranthene   | ND    | 0.0100 | "     |       |  |      |          |  |  |  |
| Benzo (a) pyrene         | ND    | 0.0100 | "     |       |  |      |          |  |  |  |
| Dibenzo (a,h) anthracene | ND    | 0.0100 | "     |       |  |      |          |  |  |  |
| Indeno (1,2,3-cd) pyrene | ND    | 0.0100 | "     |       |  |      |          |  |  |  |
| Benzo (ghi) perylene     | ND    | 0.0100 | "     |       |  |      |          |  |  |  |
| Surr: Nitrobenzene-d5    | 0.219 |        | "     | 0.333 |  | 65.8 | 30.9-139 |  |  |  |
| Surr: 2-FBP              | 0.259 |        | "     | 0.333 |  | 77.8 | 27.1-135 |  |  |  |
| Surr: p-Terphenyl-d14    | 0.257 |        | "     | 0.333 |  | 77.2 | 52.4-135 |  |  |  |

LCS (2080108-BS1)

Prepared: 08/30/02 Analyzed: 09/03/02

|                          |        |        |       |       |  |      |          |  |  |      |
|--------------------------|--------|--------|-------|-------|--|------|----------|--|--|------|
| Naphthalene              | 0.0787 | 0.0100 | mg/kg | 0.167 |  | 47.1 | 57.3-135 |  |  | Q-01 |
| Fluorene                 | 0.139  | 0.0100 | "     | 0.167 |  | 83.2 | 47.6-135 |  |  |      |
| Chrysene                 | 0.131  | 0.0100 | "     | 0.167 |  | 78.4 | 38.5-135 |  |  |      |
| Indeno (1,2,3-cd) pyrene | 0.0820 | 0.0100 | "     | 0.167 |  | 49.1 | 37.8-135 |  |  |      |
| Surr: Nitrobenzene-d5    | 0.132  |        | "     | 0.333 |  | 39.6 | 30.9-139 |  |  |      |
| Surr: 2-FBP              | 0.245  |        | "     | 0.333 |  | 73.6 | 27.1-135 |  |  |      |
| Surr: p-Terphenyl-d14    | 0.287  |        | "     | 0.333 |  | 86.2 | 52.4-135 |  |  |      |

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POPT1S603113



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Hart Crowser  
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Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Levi Fernandes

Reported:  
09/03/02 16:02

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring - Quality Control

North Creek Analytical - Spokane

| Analyte | Result | Reporting<br>Limit | Units | Spike<br>Level | Source<br>Result | %REC | %REC<br>Limits | RPD | RPD<br>Limit | Notes |
|---------|--------|--------------------|-------|----------------|------------------|------|----------------|-----|--------------|-------|
|---------|--------|--------------------|-------|----------------|------------------|------|----------------|-----|--------------|-------|

Batch 2080108 - EPA 3550B

|                            |        |                    |           |                    |        |                    |          |      |  |      |
|----------------------------|--------|--------------------|-----------|--------------------|--------|--------------------|----------|------|--|------|
| Matrix Spike (2080108-MS1) |        | Source: P2H0837-02 |           | Prepared: 08/30/02 |        | Analyzed: 09/03/02 |          | S-05 |  |      |
| Naphthalene                | 0.113  | 0.0100             | mg/kg dry | 0.187              | 0.0127 | 53.6               | 57.3-135 |      |  | Q-01 |
| Fluorene                   | 0.110  | 0.0100             | "         | 0.187              | ND     | 56.8               | 47.6-135 |      |  |      |
| Chrysene                   | 0.122  | 0.0100             | "         | 0.187              | 0.0373 | 45.3               | 38.5-135 |      |  |      |
| Indeno (1,2,3-cd) pyrene   | 0.0687 | 0.0100             | "         | 0.187              | 0.0127 | 29.9               | 37.8-135 |      |  | Q-01 |
| Surr: Nitrobenzene-d5      | 0.0911 |                    | "         | 0.373              |        | 24.4               | 30.9-139 |      |  | S-05 |
| Surr: 2-FBP                | 0.100  |                    | "         | 0.373              |        | 26.8               | 27.1-135 |      |  |      |
| Surr: p-Terphenyl-d14      | 0.202  |                    | "         | 0.373              |        | 54.2               | 52.4-135 |      |  |      |

|                                 |       |                    |           |                    |        |                    |          |      |    |      |
|---------------------------------|-------|--------------------|-----------|--------------------|--------|--------------------|----------|------|----|------|
| Matrix Spike Dup (2080108-MSD1) |       | Source: P2H0837-02 |           | Prepared: 08/30/02 |        | Analyzed: 09/03/02 |          |      |    |      |
| Naphthalene                     | 0.159 | 0.0100             | mg/kg dry | 0.187              | 0.0127 | 78.2               | 57.3-135 | 33.8 | 25 | Q-07 |
| Fluorene                        | 0.152 | 0.0100             | "         | 0.187              | ND     | 79.3               | 47.6-135 | 32.1 | 25 | Q-07 |
| Chrysene                        | 0.185 | 0.0100             | "         | 0.187              | 0.0373 | 79.0               | 38.5-135 | 41.0 | 25 | Q-07 |
| Indeno (1,2,3-cd) pyrene        | 0.104 | 0.0100             | "         | 0.187              | 0.0127 | 48.8               | 37.8-135 | 40.9 | 25 | Q-07 |
| Surr: Nitrobenzene-d5           | 0.120 |                    | "         | 0.373              |        | 32.2               | 30.9-139 |      |    |      |
| Surr: 2-FBP                     | 0.108 |                    | "         | 0.373              |        | 29.0               | 27.1-135 |      |    |      |
| Surr: p-Terphenyl-d14           | 0.252 |                    | "         | 0.373              |        | 67.6               | 52.4-135 |      |    |      |

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Lisa Domenighini, Project Manager

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POPT1S603114



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541.383.9310 fax 541.382.7588

Hart Crowser  
Five Centerpointe Drive  
Lake Oswego, OR 97035

Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Levi Fernandes

Reported:  
09/03/02 16:02

#### Notes and Definitions

- Q-01 The spike recovery for this QC sample is outside of NCA established control limits. Review of associated batch QC indicates the recovery for this analyte does not represent an out-of-control condition for the batch.
- Q-07 The RPD value for this QC sample is outside the advisory limit established by NCA. Additional sources for assessment of method precision, such as field duplicates, should be referenced.
- S-05 The surrogate recovery for this sample is outside of NCA established control limits. The alternate surrogate has been used to validate the sample result.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis. MRLs are adjusted if %Solids are less than 50%.
- wet Sample results reported on a wet weight basis (as received)
- RPD Relative Percent Difference

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Lisa Domenighini, Project Manager

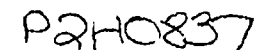
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POPT1S603115

Samples Shipped to: NCA



Hart Crowder, Inc.  
Five Centerpointe Drive, Suite 240  
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Phone: 503-620-7284 FAX: 503-6206918

[illegible]

1

POPT1S603116

7.2°C coefficient



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Hart Crowser  
Five Centerpointe Drive  
Lake Oswego, OR 97035

Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Herb Clough

Reported:  
09/25/02 16:44

#### ANALYTICAL REPORT FOR SAMPLES

| Sample ID    | Laboratory ID | Matrix | Date Sampled   | Date Received  |
|--------------|---------------|--------|----------------|----------------|
| IW3          | P2I0561-01    | Soil   | 09/20/02 08:40 | 09/20/02 09:37 |
| IW4          | P2I0561-02    | Soil   | 09/20/02 08:23 | 09/20/02 09:37 |
| T1-3E2 (0-3) | P2I0561-03    | Soil   | 09/20/02 08:05 | 09/20/02 09:37 |
| T1-SE3 (0-3) | P2I0561-04    | Soil   | 09/20/02 08:14 | 09/20/02 09:37 |

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Hart Crowser  
Five Centerpointe Drive  
Lake Oswego, OR 97035

Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Herb Clough

Reported:  
09/25/02 16:44

**Semivolatile Petroleum Products by NWTPH-Dx**  
**North Creek Analytical - Spokane**

| Analyte   | Result | Reporting<br>Limit | Units     | Dilution | Method   | Prepared | Analyzed | Batch   | Notes |
|---|--------|--------------------|-----------|----------|----------|----------|----------|---------|-------|
| <b>IW3 (P2I0561-01) Soil</b> <span style="float: right;">Sampled: 09/20/02 Received: 09/20/02</span>          |        |                    |           |          |          |          |          |         |       |
| Diesel Range Hydrocarbons   | 30.5   | 25.0               | mg/kg dry | 1        | NWTPH-Dx | 09/23/02 | 09/24/02 | 2090077 |       |
| Lube Oil  | 64.4   | 50.0               | "         | "        | "        | "        | "        | "       |       |
| Surr: 2-FBP   | 93.9 % | 50-150             |           |          |          |          |          |         |       |
| Surr: p-Terphenyl-d14   | 101 %  | 50-150             |           |          |          |          |          |         |       |
| <b>IW4 (P2I0561-02) Soil</b> <span style="float: right;">Sampled: 09/20/02 Received: 09/20/02</span>          |        |                    |           |          |          |          |          |         |       |
| Diesel Range Hydrocarbons   | ND     | 25.0               | mg/kg dry | 1        | NWTPH-Dx | 09/23/02 | 09/24/02 | 2090077 |       |
| Lube Oil  | ND     | 50.0               | "         | "        | "        | "        | "        | "       |       |
| Surr: 2-FBP   | 103 %  | 50-150             |           |          |          |          |          |         |       |
| Surr: p-Terphenyl-d14   | 116 %  | 50-150             |           |          |          |          |          |         |       |
| <b>T1-3E2 (0-3) (P2I0561-03) Soil</b> <span style="float: right;">Sampled: 09/20/02 Received: 09/20/02</span> |        |                    |           |          |          |          |          |         |       |
| Diesel Range Hydrocarbons   | ND     | 25.0               | mg/kg dry | 1        | NWTPH-Dx | 09/23/02 | 09/24/02 | 2090077 |       |
| Lube Oil  | ND     | 50.0               | "         | "        | "        | "        | "        | "       |       |
| Surr: 2-FBP   | 76.6 % | 50-150             |           |          |          |          |          |         |       |
| Surr: p-Terphenyl-d14   | 98.5 % | 50-150             |           |          |          |          |          |         |       |
| <b>T1-SE3 (0-3) (P2I0561-04) Soil</b> <span style="float: right;">Sampled: 09/20/02 Received: 09/20/02</span> |        |                    |           |          |          |          |          |         |       |
| Diesel Range Hydrocarbons   | ND     | 25.0               | mg/kg dry | 1        | NWTPH-Dx | 09/23/02 | 09/24/02 | 2090077 |       |
| Lube Oil  | ND     | 50.0               | "         | "        | "        | "        | "        | "       |       |
| Surr: 2-FBP   | 85.7 % | 50-150             |           |          |          |          |          |         |       |
| Surr: p-Terphenyl-d14   | 118 %  | 50-150             |           |          |          |          |          |         |       |

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POPT1S603118



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Hart Crowser  
Five Centerpointe Drive  
Lake Oswego, OR 97035

Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Herb Clough

Reported:  
09/25/02 16:44

**Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring**  
**North Creek Analytical - Spokane**

| Analyte                      | Result | Reporting Limit | Units     | Dilution | Method        | Prepared                             | Analyzed | Batch   | Notes |
|------------------------------|--------|-----------------|-----------|----------|---------------|--------------------------------------|----------|---------|-------|
| <b>IW3 (P2I0561-01) Soil</b> |        |                 |           |          |               | Sampled: 09/20/02 Received: 09/20/02 |          |         |       |
| Naphthalene                  | ND     | 0.0100          | mg/kg dry | 1        | EPA 8270 mod. | 09/23/02                             | 09/24/02 | 2090076 |       |
| Acenaphthylene               | ND     | 0.0100          | "         | "        | "             | "                                    | "        | "       |       |
| Acenaphthene                 | ND     | 0.0100          | "         | "        | "             | "                                    | "        | "       |       |
| Fluorene                     | ND     | 0.0100          | "         | "        | "             | "                                    | "        | "       |       |
| Phenanthrene                 | 0.0467 | 0.0100          | "         | "        | "             | "                                    | "        | "       |       |
| Anthracene                   | 0.0205 | 0.0100          | "         | "        | "             | "                                    | "        | "       |       |
| Fluoranthene                 | 0.0950 | 0.0100          | "         | "        | "             | "                                    | "        | "       |       |
| Pyrene                       | 0.115  | 0.0100          | "         | "        | "             | "                                    | "        | "       |       |
| Benzo (a) anthracene         | 0.0901 | 0.0100          | "         | "        | "             | "                                    | "        | "       |       |
| Chrysene                     | 0.0770 | 0.0100          | "         | "        | "             | "                                    | "        | "       |       |
| Benzo (b) fluoranthene       | 0.0696 | 0.0100          | "         | "        | "             | "                                    | "        | "       |       |
| Benzo (k) fluoranthene       | 0.0803 | 0.0100          | "         | "        | "             | "                                    | "        | "       |       |
| Benzo (a) pyrene             | 0.102  | 0.0100          | "         | "        | "             | "                                    | "        | "       |       |
| Dibenzo (a,h) anthracene     | 0.0262 | 0.0100          | "         | "        | "             | "                                    | "        | "       |       |
| Indeno (1,2,3-cd) pyrene     | 0.0581 | 0.0100          | "         | "        | "             | "                                    | "        | "       |       |
| Benzo (ghi) perylene         | 0.0663 | 0.0100          | "         | "        | "             | "                                    | "        | "       |       |
| Surr: Nitrobenzene-d5        | 74.9 % | 30.9-139        |           |          |               |                                      |          |         |       |
| Surr: 2-FBP                  | 85.1 % | 27.1-135        |           |          |               |                                      |          |         |       |
| Surr: p-Terphenyl-d14        | 85.6 % | 52.4-135        |           |          |               |                                      |          |         |       |

|                              |        |          |           |   |               |                                      |          |         |  |
|------------------------------|--------|----------|-----------|---|---------------|--------------------------------------|----------|---------|--|
| <b>IW4 (P2I0561-02) Soil</b> |        |          |           |   |               | Sampled: 09/20/02 Received: 09/20/02 |          |         |  |
| Naphthalene                  | ND     | 0.0100   | mg/kg dry | 1 | EPA 8270 mod. | 09/23/02                             | 09/24/02 | 2090076 |  |
| Acenaphthylene               | ND     | 0.0100   | "         | " | "             | "                                    | "        | "       |  |
| Acenaphthene                 | ND     | 0.0100   | "         | " | "             | "                                    | "        | "       |  |
| Fluorene                     | ND     | 0.0100   | "         | " | "             | "                                    | "        | "       |  |
| Phenanthrene                 | ND     | 0.0100   | "         | " | "             | "                                    | "        | "       |  |
| Anthracene                   | ND     | 0.0100   | "         | " | "             | "                                    | "        | "       |  |
| Fluoranthene                 | 0.0205 | 0.0100   | "         | " | "             | "                                    | "        | "       |  |
| Pyrene                       | 0.0234 | 0.0100   | "         | " | "             | "                                    | "        | "       |  |
| Benzo (a) anthracene         | 0.0177 | 0.0100   | "         | " | "             | "                                    | "        | "       |  |
| Chrysene                     | 0.0142 | 0.0100   | "         | " | "             | "                                    | "        | "       |  |
| Benzo (b) fluoranthene       | 0.0135 | 0.0100   | "         | " | "             | "                                    | "        | "       |  |
| Benzo (k) fluoranthene       | 0.0163 | 0.0100   | "         | " | "             | "                                    | "        | "       |  |
| Benzo (a) pyrene             | 0.0213 | 0.0100   | "         | " | "             | "                                    | "        | "       |  |
| Dibenzo (a,h) anthracene     | ND     | 0.0100   | "         | " | "             | "                                    | "        | "       |  |
| Indeno (1,2,3-cd) pyrene     | 0.0135 | 0.0100   | "         | " | "             | "                                    | "        | "       |  |
| Benzo (ghi) perylene         | 0.0149 | 0.0100   | "         | " | "             | "                                    | "        | "       |  |
| Surr: Nitrobenzene-d5        | 78.5 % | 30.9-139 |           |   |               |                                      |          |         |  |

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POPT1S603119



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Hart Crowser  
Five Centerpointe Drive  
Lake Oswego, OR 97035

Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Herb Clough

Reported:  
09/25/02 16:44

**Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring**  
**North Creek Analytical - Spokane**

| Analyte                               | Result | Reporting Limit | Units     | Dilution | Method        | Prepared                             | Analyzed | Batch   | Notes |
|---------------------------------------|--------|-----------------|-----------|----------|---------------|--------------------------------------|----------|---------|-------|
| <b>IW4 (P2I0561-02) Soil</b>          |        |                 |           |          |               | Sampled: 09/20/02 Received: 09/20/02 |          |         |       |
| Surr: 2-FBP                           | 81.4 % | 27.1-135        |           |          |               |                                      |          |         |       |
| Surr: p-Terphenyl-d14                 | 74.9 % | 52.4-135        |           |          |               |                                      |          |         |       |
| <b>T1-3E2 (0-3) (P2I0561-03) Soil</b> |        |                 |           |          |               | Sampled: 09/20/02 Received: 09/20/02 |          |         |       |
| Naphthalene                           | ND     | 0.0100          | mg/kg dry | 1        | EPA 8270 mod. | 09/23/02                             | 09/24/02 | 2090076 |       |
| Acenaphthylene                        | ND     | 0.0100          | "         | "        | "             | "                                    | "        | "       |       |
| Acenaphthene                          | ND     | 0.0100          | "         | "        | "             | "                                    | "        | "       |       |
| Fluorene                              | ND     | 0.0100          | "         | "        | "             | "                                    | "        | "       |       |
| Phenanthrene                          | 0.0261 | 0.0100          | "         | "        | "             | "                                    | "        | "       |       |
| Anthracene                            | ND     | 0.0100          | "         | "        | "             | "                                    | "        | "       |       |
| Fluoranthene                          | 0.0435 | 0.0100          | "         | "        | "             | "                                    | "        | "       |       |
| Pyrene                                | 0.0561 | 0.0100          | "         | "        | "             | "                                    | "        | "       |       |
| Benzo (a) anthracene                  | 0.0324 | 0.0100          | "         | "        | "             | "                                    | "        | "       |       |
| Chrysene                              | 0.0316 | 0.0100          | "         | "        | "             | "                                    | "        | "       |       |
| Benzo (b) fluoranthene                | 0.0285 | 0.0100          | "         | "        | "             | "                                    | "        | "       |       |
| Benzo (k) fluoranthene                | 0.0301 | 0.0100          | "         | "        | "             | "                                    | "        | "       |       |
| Benzo (a) pyrene                      | 0.0427 | 0.0100          | "         | "        | "             | "                                    | "        | "       |       |
| Dibenzo (a,h) anthracene              | 0.0127 | 0.0100          | "         | "        | "             | "                                    | "        | "       |       |
| Indeno (1,2,3-cd) pyrene              | 0.0277 | 0.0100          | "         | "        | "             | "                                    | "        | "       |       |
| Benzo (ghi) perylene                  | 0.0372 | 0.0100          | "         | "        | "             | "                                    | "        | "       |       |
| Surr: Nitrobenzene-d5                 | 56.5 % | 30.9-139        |           |          |               |                                      |          |         |       |
| Surr: 2-FBP                           | 60.5 % | 27.1-135        |           |          |               |                                      |          |         |       |
| Surr: p-Terphenyl-d14                 | 59.0 % | 52.4-135        |           |          |               |                                      |          |         |       |
| <b>T1-SE3 (0-3) (P2I0561-04) Soil</b> |        |                 |           |          |               | Sampled: 09/20/02 Received: 09/20/02 |          |         |       |
| Naphthalene                           | ND     | 0.0100          | mg/kg dry | 1        | EPA 8270 mod. | 09/23/02                             | 09/24/02 | 2090076 |       |
| Acenaphthylene                        | 0.0292 | 0.0100          | "         | "        | "             | "                                    | "        | "       |       |
| Acenaphthene                          | 0.0228 | 0.0100          | "         | "        | "             | "                                    | "        | "       |       |
| Fluorene                              | 0.0135 | 0.0100          | "         | "        | "             | "                                    | "        | "       |       |
| Phenanthrene                          | 0.369  | 0.0100          | "         | "        | "             | "                                    | "        | "       |       |
| Anthracene                            | 0.106  | 0.0100          | "         | "        | "             | "                                    | "        | "       |       |
| Fluoranthene                          | 0.269  | 0.0100          | "         | "        | "             | "                                    | "        | "       |       |
| Pyrene                                | 0.356  | 0.0100          | "         | "        | "             | "                                    | "        | "       |       |
| Benzo (a) anthracene                  | 0.167  | 0.0100          | "         | "        | "             | "                                    | "        | "       |       |
| Chrysene                              | 0.159  | 0.0100          | "         | "        | "             | "                                    | "        | "       |       |
| Benzo (b) fluoranthene                | 0.0946 | 0.0100          | "         | "        | "             | "                                    | "        | "       |       |
| Benzo (k) fluoranthene                | 0.121  | 0.0100          | "         | "        | "             | "                                    | "        | "       |       |
| Benzo (a) pyrene                      | 0.149  | 0.0100          | "         | "        | "             | "                                    | "        | "       |       |

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POPT1S603120





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Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Herb Clough

Reported:  
09/25/02 16:44

**Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring**  
**North Creek Analytical - Spokane**

| Analyte                        | Result | Reporting<br>Limit | Units     | Dilution | Method        | Prepared                             | Analyzed | Batch   | Notes |
|--------------------------------|--------|--------------------|-----------|----------|---------------|--------------------------------------|----------|---------|-------|
| T1-SE3 (0-3) (P210561-04) Soil |        |                    |           |          |               | Sampled: 09/20/02 Received: 09/20/02 |          |         |       |
| Dibenzo (a,h) anthracene       | 0.0277 | 0.0100             | mg/kg dry | 1        | EPA 8270 mod. | 09/23/02                             | 09/24/02 | 2090076 |       |
| Indeno (1,2,3-cd) pyrene       | 0.0832 | 0.0100             | "         | "        | "             | "                                    | "        | "       |       |
| Benzo (ghi) perylene           | 0.0975 | 0.0100             | "         | "        | "             | "                                    | "        | "       |       |
| Surr: Nitrobenzene-d5          | 103 %  | 30.9-139           |           |          |               |                                      |          |         |       |
| Surr: 2-FBP                    | 99.4 % | 27.1-135           |           |          |               |                                      |          |         |       |
| Surr: p-Terphenyl-d14          | 96.3 % | 52.4-135           |           |          |               |                                      |          |         |       |

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POPT1S603121



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Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Herb Clough

Reported:  
09/25/02 16:44

**Conventional Chemistry Parameters by APHA/EPA Methods**  
**North Creek Analytical - Spokane**

| Analyte                               | Result | Reporting<br>Limit | Units | Dilution | Method     | Prepared                             | Analyzed | Batch   | Notes |
|---------------------------------------|--------|--------------------|-------|----------|------------|--------------------------------------|----------|---------|-------|
| <b>IW3 (P210561-01) Soil</b>          |        |                    |       |          |            | Sampled: 09/20/02 Received: 09/20/02 |          |         |       |
| % Solids                              | 81.4   | 0.0100 % by Weight |       | 1        | Gravimetry | 09/24/02                             | 09/24/02 | 2090083 |       |
| <b>IW4 (P210561-02) Soil</b>          |        |                    |       |          |            | Sampled: 09/20/02 Received: 09/20/02 |          |         |       |
| % Solids                              | 94.1   | 0.0100 % by Weight |       | 1        | Gravimetry | 09/24/02                             | 09/24/02 | 2090083 |       |
| <b>T1-3E2 (0-3) (P210561-03) Soil</b> |        |                    |       |          |            | Sampled: 09/20/02 Received: 09/20/02 |          |         |       |
| % Solids                              | 84.3   | 0.0100 % by Weight |       | 1        | Gravimetry | 09/24/02                             | 09/24/02 | 2090083 |       |
| <b>T1-SE3 (0-3) (P210561-04) Soil</b> |        |                    |       |          |            | Sampled: 09/20/02 Received: 09/20/02 |          |         |       |
| % Solids                              | 93.7   | 0.0100 % by Weight |       | 1        | Gravimetry | 09/24/02                             | 09/24/02 | 2090083 |       |

North Creek Analytical - Portland

Lisa Domenighini, Project Manager

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Environmental Laboratory Network

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POPT1S603122



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Hart Crowser  
Five Centerpointe Drive  
Lake Oswego, OR 97035

Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Herb Clough

Reported:  
09/25/02 16:44

Semivolatile Petroleum Products by NWTPH-Dx - Quality Control

North Creek Analytical - Spokane

| Analyte | Result | Reporting<br>Limit | Units | Spike<br>Level | Source<br>Result | %REC<br>%REC | Limit | RPD | RPD<br>Limit | Notes |
|---------|--------|--------------------|-------|----------------|------------------|--------------|-------|-----|--------------|-------|
|---------|--------|--------------------|-------|----------------|------------------|--------------|-------|-----|--------------|-------|

Batch 2090077 - EPA 3550B

Blank (2090077-BLK1)

Prepared & Analyzed: 09/23/02

|                           |      |      |       |      |  |      |        |  |  |  |
|---------------------------|------|------|-------|------|--|------|--------|--|--|--|
| Diesel Range Hydrocarbons | ND   | 25.0 | mg/kg |      |  |      |        |  |  |  |
| Lube Oil                  | ND   | 50.0 | "     |      |  |      |        |  |  |  |
| Surr: 2-FBP               | 6.52 |      | "     | 6.67 |  | 97.8 | 50-150 |  |  |  |
| Surr: p-Terphenyl-d14     | 6.32 |      | "     | 6.67 |  | 94.8 | 50-150 |  |  |  |

LCS (2090077-BS1)

Prepared: 09/23/02 Analyzed: 09/24/02

|                           |      |      |       |      |  |      |        |  |  |  |
|---------------------------|------|------|-------|------|--|------|--------|--|--|--|
| Diesel Range Hydrocarbons | 93.0 | 25.0 | mg/kg | 83.3 |  | 112  | 50-150 |  |  |  |
| Surr: 2-FBP               | 6.47 |      | "     | 6.67 |  | 97.0 | 50-150 |  |  |  |
| Surr: p-Terphenyl-d14     | 7.90 |      | "     | 6.67 |  | 118  | 50-150 |  |  |  |

Duplicate (2090077-DUP1)

Source: P2I0561-02

Prepared: 09/23/02 Analyzed: 09/24/02

|                           |      |      |           |      |    |     |        |  |    |  |
|---------------------------|------|------|-----------|------|----|-----|--------|--|----|--|
| Diesel Range Hydrocarbons | ND   | 25.0 | mg/kg dry |      | ND |     |        |  | 50 |  |
| Lube Oil                  | 61.9 | 50.0 | "         |      | ND |     |        |  | 50 |  |
| Surr: 2-FBP               | 7.59 |      | "         | 7.09 |    | 107 | 50-150 |  |    |  |
| Surr: p-Terphenyl-d14     | 8.14 |      | "         | 7.09 |    | 115 | 50-150 |  |    |  |

Matrix Spike (2090077-MS1)

Source: P2I0561-02

Prepared: 09/23/02 Analyzed: 09/24/02

|                           |      |      |           |      |    |     |        |  |  |  |
|---------------------------|------|------|-----------|------|----|-----|--------|--|--|--|
| Diesel Range Hydrocarbons | 118  | 25.0 | mg/kg dry | 88.6 | ND | 133 | 50-150 |  |  |  |
| Surr: 2-FBP               | 7.74 |      | "         | 7.09 |    | 109 | 50-150 |  |  |  |
| Surr: p-Terphenyl-d14     | 8.27 |      | "         | 7.09 |    | 117 | 50-150 |  |  |  |

North Creek Analytical - Portland

Lisa Domenighini, Project Manager

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POPT1S603123



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Hart Crowser  
Five Centerpointe Drive  
Lake Oswego, OR 97035

Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Herb Clough

Reported:  
09/25/02 16:44

**Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring - Quality Control**

**North Creek Analytical - Spokane**

| Analyte | Result | Reporting<br>Limit | Units | Spike<br>Level | Source<br>Result | %REC | %REC<br>Limits | RPD | RPD<br>Limit | Notes |
|---------|--------|--------------------|-------|----------------|------------------|------|----------------|-----|--------------|-------|
|---------|--------|--------------------|-------|----------------|------------------|------|----------------|-----|--------------|-------|

**Batch 2090076 - EPA 3550B**

**Blank (2090076-BLK1)**

Prepared: 09/23/02 Analyzed: 09/24/02

|                          |      |        |       |      |  |      |          |  |  |      |
|--------------------------|------|--------|-------|------|--|------|----------|--|--|------|
| Naphthalene              | ND   | 0.0100 | mg/kg |      |  |      |          |  |  |      |
| Acenaphthylene           | ND   | 0.0100 | "     |      |  |      |          |  |  |      |
| Acenaphthene             | ND   | 0.0100 | "     |      |  |      |          |  |  |      |
| Fluorene                 | ND   | 0.0100 | "     |      |  |      |          |  |  |      |
| Phenanthrene             | ND   | 0.0100 | "     |      |  |      |          |  |  |      |
| Anthracene               | ND   | 0.0100 | "     |      |  |      |          |  |  |      |
| Fluoranthene             | ND   | 0.0100 | "     |      |  |      |          |  |  |      |
| Pyrene                   | ND   | 0.0100 | "     |      |  |      |          |  |  |      |
| Benzo (a) anthracene     | ND   | 0.0100 | "     |      |  |      |          |  |  |      |
| Chrysene                 | ND   | 0.0100 | "     |      |  |      |          |  |  |      |
| Benzo (b) fluoranthene   | ND   | 0.0100 | "     |      |  |      |          |  |  |      |
| Benzo (k) fluoranthene   | ND   | 0.0100 | "     |      |  |      |          |  |  |      |
| Benzo (a) pyrene         | ND   | 0.0100 | "     |      |  |      |          |  |  |      |
| Dibenzo (a,h) anthracene | ND   | 0.0100 | "     |      |  |      |          |  |  |      |
| Indeno (1,2,3-cd) pyrene | ND   | 0.0100 | "     |      |  |      |          |  |  |      |
| Benzo (ghi) perylene     | ND   | 0.0100 | "     |      |  |      |          |  |  |      |
| Surr: Nitrobenzene-d5    | 1.55 |        | "     | 1.67 |  | 92.8 | 30.9-139 |  |  | A-01 |
| Surr: 2-FBP              | 1.59 |        | "     | 1.67 |  | 95.2 | 27.1-135 |  |  | A-01 |
| Surr: p-Terphenyl-d14    | 1.43 |        | "     | 1.67 |  | 85.6 | 52.4-135 |  |  | A-01 |

**LCS (2090076-BS1)**

Prepared: 09/23/02 Analyzed: 09/24/02

|                          |        |        |       |       |  |      |          |  |  |  |
|--------------------------|--------|--------|-------|-------|--|------|----------|--|--|--|
| Naphthalene              | 0.0800 | 0.0100 | mg/kg | 0.167 |  | 47.9 | 46.3-135 |  |  |  |
| Fluorene                 | 0.122  | 0.0100 | "     | 0.167 |  | 73.1 | 47.6-135 |  |  |  |
| Chrysene                 | 0.109  | 0.0100 | "     | 0.167 |  | 65.3 | 38.5-135 |  |  |  |
| Indeno (1,2,3-cd) pyrene | 0.131  | 0.0100 | "     | 0.167 |  | 78.4 | 37.8-135 |  |  |  |
| Surr: Nitrobenzene-d5    | 0.229  |        | "     | 0.333 |  | 68.8 | 30.9-139 |  |  |  |
| Surr: 2-FBP              | 0.245  |        | "     | 0.333 |  | 73.6 | 27.1-135 |  |  |  |
| Surr: p-Terphenyl-d14    | 0.265  |        | "     | 0.333 |  | 79.6 | 52.4-135 |  |  |  |

North Creek Analytical - Portland

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Lisa Domenighini, Project Manager

North Creek Analytical, Inc.  
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POPT1S603124



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**Bend** 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711  
 541.383.9310 fax 541.382.7588

Hart Crowser  
 Five Centerpointe Drive  
 Lake Oswego, OR 97035

Project: POP - T-1  
 Project Number: 15230-04  
 Project Manager: Herb Clough

Reported:  
 09/25/02 16:44

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring - Quality Control

North Creek Analytical - Spokane

| Analyte                                | Result | Reporting Limit           | Units     | Spike Level               | Source Result | %REC                      | %REC Limits | RPD  | RPD Limit | Notes |
|--|--------|---------------------------|-----------|---------------------------|---------------|---------------------------|-------------|------|-----------|-------|
| <b>Batch 2090076 - EPA 3550B</b>       |        |                           |           |                           |               |                           |             |      |           |       |
| <b>Matrix Spike (2090076-MS1)</b>      |        | <b>Source: P210561-01</b> |           | <b>Prepared: 09/23/02</b> |               | <b>Analyzed: 09/24/02</b> |             |      |           |       |
| Naphthalene                            | 0.120  | 0.0100                    | mg/kg dry | 0.205                     | ND            | 56.9                      | 46.3-135    |      |           |       |
| Fluorene                               | 0.192  | 0.0100                    | "         | 0.205                     | ND            | 92.5                      | 47.6-135    |      |           |       |
| Chrysene                               | 0.281  | 0.0100                    | "         | 0.205                     | 0.0770        | 99.5                      | 38.5-135    |      |           |       |
| Indeno (1,2,3-cd) pyrene               | 0.274  | 0.0100                    | "         | 0.205                     | 0.0581        | 105                       | 37.8-135    |      |           |       |
| Surr: Nitrobenzene-d5                  | 0.357  |                           | "         | 0.410                     |               | 87.1                      | 30.9-139    |      |           |       |
| Surr: 2-FBP                            | 0.307  |                           | "         | 0.410                     |               | 74.9                      | 27.1-135    |      |           |       |
| Surr: p-Terphenyl-d14                  | 0.367  |                           | "         | 0.410                     |               | 89.5                      | 52.4-135    |      |           |       |
| <b>Matrix Spike Dup (2090076-MSD1)</b> |        | <b>Source: P210561-01</b> |           | <b>Prepared: 09/23/02</b> |               | <b>Analyzed: 09/24/02</b> |             |      |           |       |
| Naphthalene                            | 0.111  | 0.0100                    | mg/kg dry | 0.205                     | ND            | 52.5                      | 46.3-135    | 7.79 | 25        |       |
| Fluorene                               | 0.153  | 0.0100                    | "         | 0.205                     | ND            | 73.4                      | 47.6-135    | 22.6 | 25        |       |
| Chrysene                               | 0.201  | 0.0100                    | "         | 0.205                     | 0.0770        | 60.5                      | 38.5-135    | 33.2 | 25        | Q-09  |
| Indeno (1,2,3-cd) pyrene               | 0.210  | 0.0100                    | "         | 0.205                     | 0.0581        | 74.1                      | 37.8-135    | 26.4 | 25        | Q-09  |
| Surr: Nitrobenzene-d5                  | 0.288  |                           | "         | 0.410                     |               | 70.2                      | 30.9-139    |      |           |       |
| Surr: 2-FBP                            | 0.269  |                           | "         | 0.410                     |               | 65.6                      | 27.1-135    |      |           |       |
| Surr: p-Terphenyl-d14                  | 0.278  |                           | "         | 0.410                     |               | 67.8                      | 52.4-135    |      |           |       |

North Creek Analytical - Portland

*Lisa Domenighini*

Lisa Domenighini, Project Manager

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 Environmental Laboratory Network

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POPT1S603125



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Hart Crowser  
Five Centerpointe Drive  
Lake Oswego, OR 97035

Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Herb Clough

Reported:  
09/25/02 16:44

#### Notes and Definitions

A-01 See case narrative.  
Q-09 The RPD value is affected by the concentration of analyte already present in the sample.  
DET Analyte DETECTED  
ND Analyte NOT DETECTED at or above the reporting limit  
NR Not Reported  
dry Sample results reported on a dry weight basis. MRLs are adjusted if %Solids are less than 50%.  
wet Sample results reported on a wet weight basis (as received)  
RPD Relative Percent Difference

North Creek Analytical - Portland

Lisa Domenighini, Project Manager

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POPT1S603126



DATE 9.20.02 PAGE 1 OF 1

# HART CROWSER

Hart Crowser, Inc.  
Five Centerpointe Drive, Suite 240  
Lake Oswego, Oregon 97035

[illegible]

12.2°C cc: client

POPT1S603127



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September 25, 2002

Lisa Domenighini  
North Creek Analytical, Inc.  
9405 Nimbus Ave.  
Beaverton, OR 97008

RE: PAHs by EPA 8270 SIM

The following is a brief narrative describing any anomalies and associated corrective action related to the attached data package.

**QC Narrative for Data Package S209068, P210561**

The samples were received on 9/10/02.

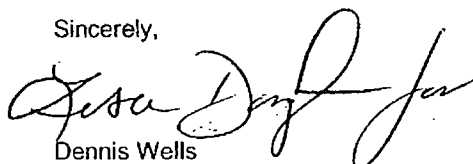
There were no anomalies associated with receipt.

BLK1 was spiked with a higher than normal concentration of the surrogate compounds. Normally a 20ul addition of the spiking solution results in a final concentration of 0.333 mg/Kg. The blank sample was mistakenly spiked with 100 ul of the spiking solution resulting in a final concentration of 1.67 mg/Kg.

RPD results for Chrysene and Indeno(1,2,3 cd) pyrene were slightly above the acceptable range for the MS/MSD pair. The anomaly was attributed to matrix variability and corrective action was not taken.

There were no other anomalies associated with this data package.

Sincerely,



Dennis Wells  
Lab Manager

**North Creek Analytical, Inc.**  
**Environmental Laboratory Network**

POPT1S603128





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Hart Crowser  
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Lake Oswego, OR 97035

Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Levi Fernandes

Reported:  
09/26/02 15:11

#### ANALYTICAL REPORT FOR SAMPLES

| Sample ID      | Laboratory ID | Matrix | Date Sampled   | Date Received  |
|----------------|---------------|--------|----------------|----------------|
| T1-3ESE4 (0-3) | P210630-01    | Soil   | 09/20/02 13:25 | 09/23/02 12:47 |
| 1W5            | P210630-02    | Soil   | 09/23/02 12:15 | 09/23/02 12:47 |
| 1W6            | P210630-03    | Soil   | 09/23/02 11:37 | 09/23/02 12:47 |

North Creek Analytical - Portland

Lisa Domenighini, Project Manager

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POPT1S603129



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Hart Crowser  
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Lake Oswego, OR 97035

Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Levi Fernandes

Reported:  
09/26/02 15:11

**Semivolatile Petroleum Products by NWTPH-Dx**  
**North Creek Analytical - Spokane**

| Analyte                                 | Result | Reporting<br>Limit | Units     | Dilution | Method   | Prepared                             | Analyzed | Batch   | Notes |
|---|--------|--------------------|-----------|----------|----------|--------------------------------------|----------|---------|-------|
| <b>T1-3ESE4 (0-3) (P2I0630-01) Soil</b> |        |                    |           |          |          | Sampled: 09/20/02 Received: 09/23/02 |          |         |       |
| Diesel Range Hydrocarbons               | ND     | 25.0               | mg/kg dry | 1        | NWTPH-Dx | 09/25/02                             | 09/26/02 | 2090089 |       |
| Lube Oil                                | ND     | 50.0               | "         | "        | "        | "                                    | "        | "       |       |
| Surr: 2-FBP                             | 126 %  | 50-150             |           |          |          |                                      |          |         |       |
| Surr: p-Terphenyl-d14                   | 128 %  | 50-150             |           |          |          |                                      |          |         |       |
| <b>1W5 (P2I0630-02) Soil</b>            |        |                    |           |          |          | Sampled: 09/23/02 Received: 09/23/02 |          |         |       |
| Diesel Range Hydrocarbons               | 25.3   | 25.0               | mg/kg dry | 1        | NWTPH-Dx | 09/25/02                             | 09/26/02 | 2090089 |       |
| Lube Oil                                | 73.8   | 50.0               | "         | "        | "        | "                                    | "        | "       |       |
| Surr: 2-FBP                             | 107 %  | 50-150             |           |          |          |                                      |          |         |       |
| Surr: p-Terphenyl-d14                   | 122 %  | 50-150             |           |          |          |                                      |          |         |       |

North Creek Analytical - Portland

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Lisa Domenighini, Project Manager

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POPT1S603130



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Hart Crowser  
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Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Levi Fernandes

Reported:  
09/26/02 15:11

**Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring**  
**North Creek Analytical - Spokane**

| Analyte                                 | Result | Reporting Limit | Units     | Dilution | Method        | Prepared                             | Analyzed | Batch   | Notes |
|---|--------|-----------------|-----------|----------|---------------|--------------------------------------|----------|---------|-------|
| <b>T1-3ESE4 (0-3) (P210630-01) Soil</b> |        |                 |           |          |               | Sampled: 09/20/02 Received: 09/23/02 |          |         |       |
| Naphthalene                             | ND     | 0.0500          | mg/kg dry | 5        | EPA 8270 mod. | 09/25/02                             | 09/26/02 | 2090084 |       |
| Acenaphthylene                          | 0.0506 | 0.0500          | "         | "        | "             | "                                    | "        | "       |       |
| Acenaphthene                            | ND     | 0.0500          | "         | "        | "             | "                                    | "        | "       |       |
| Fluorene                                | ND     | 0.0500          | "         | "        | "             | "                                    | "        | "       |       |
| Phenanthrene                            | 0.286  | 0.0500          | "         | "        | "             | "                                    | "        | "       |       |
| Anthracene                              | 0.0904 | 0.0500          | "         | "        | "             | "                                    | "        | "       |       |
| Fluoranthene                            | 0.354  | 0.0500          | "         | "        | "             | "                                    | "        | "       |       |
| Pyrene                                  | 0.535  | 0.0500          | "         | "        | "             | "                                    | "        | "       |       |
| Benzo (a) anthracene                    | 0.228  | 0.0500          | "         | "        | "             | "                                    | "        | "       |       |
| Chrysene                                | 0.231  | 0.0500          | "         | "        | "             | "                                    | "        | "       |       |
| Benzo (b) fluoranthene                  | 0.181  | 0.0500          | "         | "        | "             | "                                    | "        | "       |       |
| Benzo (k) fluoranthene                  | 0.166  | 0.0500          | "         | "        | "             | "                                    | "        | "       |       |
| Benzo (a) pyrene                        | 0.311  | 0.0500          | "         | "        | "             | "                                    | "        | "       |       |
| Dibenzo (a,h) anthracene                | ND     | 0.0500          | "         | "        | "             | "                                    | "        | "       |       |
| Indeno (1,2,3-cd) pyrene                | 0.354  | 0.0500          | "         | "        | "             | "                                    | "        | "       |       |
| Benzo (ghi) perylene                    | 0.734  | 0.0500          | "         | "        | "             | "                                    | "        | "       |       |
| Surr: Nitrobenzene-d5                   | 178 %  | 30.9-139        |           |          |               |                                      |          |         | S-01  |
| Surr: 2-FBP                             | 186 %  | 27.1-135        |           |          |               |                                      |          |         | S-01  |
| Surr: p-Terphenyl-d14                   | 186 %  | 52.4-135        |           |          |               |                                      |          |         | S-01  |

|                              |        |          |           |   |               |                                      |          |         |  |
|------------------------------|--------|----------|-----------|---|---------------|--------------------------------------|----------|---------|--|
| <b>1W5 (P210630-02) Soil</b> |        |          |           |   |               | Sampled: 09/23/02 Received: 09/23/02 |          |         |  |
| Naphthalene                  | 0.0157 | 0.0100   | mg/kg dry | 1 | EPA 8270 mod. | 09/25/02                             | 09/26/02 | 2090084 |  |
| Acenaphthylene               | ND     | 0.0100   | "         | " | "             | "                                    | "        | "       |  |
| Acenaphthene                 | ND     | 0.0100   | "         | " | "             | "                                    | "        | "       |  |
| Fluorene                     | ND     | 0.0100   | "         | " | "             | "                                    | "        | "       |  |
| Phenanthrene                 | 0.0315 | 0.0100   | "         | " | "             | "                                    | "        | "       |  |
| Anthracene                   | ND     | 0.0100   | "         | " | "             | "                                    | "        | "       |  |
| Fluoranthene                 | 0.0386 | 0.0100   | "         | " | "             | "                                    | "        | "       |  |
| Pyrene                       | 0.0543 | 0.0100   | "         | " | "             | "                                    | "        | "       |  |
| Benzo (a) anthracene         | 0.0338 | 0.0100   | "         | " | "             | "                                    | "        | "       |  |
| Chrysene                     | 0.0331 | 0.0100   | "         | " | "             | "                                    | "        | "       |  |
| Benzo (b) fluoranthene       | 0.0220 | 0.0100   | "         | " | "             | "                                    | "        | "       |  |
| Benzo (k) fluoranthene       | 0.0213 | 0.0100   | "         | " | "             | "                                    | "        | "       |  |
| Benzo (a) pyrene             | 0.0370 | 0.0100   | "         | " | "             | "                                    | "        | "       |  |
| Dibenzo (a,h) anthracene     | ND     | 0.0100   | "         | " | "             | "                                    | "        | "       |  |
| Indeno (1,2,3-cd) pyrene     | 0.0228 | 0.0100   | "         | " | "             | "                                    | "        | "       |  |
| Benzo (ghi) perylene         | 0.0268 | 0.0100   | "         | " | "             | "                                    | "        | "       |  |
| Surr: Nitrobenzene-d5        | 109 %  | 30.9-139 |           |   |               |                                      |          |         |  |

North Creek Analytical - Portland

Lisa Domenighini, Project Manager

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North Creek Analytical, Inc.  
Environmental Laboratory Network

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POPT1S603131



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541.383.9310 fax 541.382.7588

Hart Crowser  
Five Centerpointe Drive  
Lake Oswego, OR 97035

Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Levi Fernandes

Reported:  
09/26/02 15:11

**Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring**  
**North Creek Analytical - Spokane**

| Analyte                      | Result | Reporting<br>Limit | Units | Dilution | Method | Prepared                             | Analyzed | Batch | Notes |
|------------------------------|--------|--------------------|-------|----------|--------|--------------------------------------|----------|-------|-------|
| <b>1W5 (P210630-02) Soil</b> |        |                    |       |          |        | Sampled: 09/23/02 Received: 09/23/02 |          |       |       |
| Surr: 2-FBP                  | 104 %  | 27.1-135           |       |          |        |                                      |          |       |       |
| Surr: p-Terphenyl-d14        | 120 %  | 52.4-135           |       |          |        |                                      |          |       |       |

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POPT1S603132



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Hart Crowser  
Five Centerpointe Drive  
Lake Oswego, OR 97035

Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Levi Fernandes

Reported:  
09/26/02 15:11

**Conventional Chemistry Parameters by APHA/EPA Methods**  
**North Creek Analytical - Spokane**

| Analyte                                 | Result | Reporting<br>Limit | Units       | Dilution | Method                               | Prepared | Analyzed | Batch   | Notes |
|---|--------|--------------------|-------------|----------|--------------------------------------|----------|----------|---------|-------|
| <b>T1-3ESE4 (0-3) (P2I0630-01) Soil</b> |        |                    |             |          | Sampled: 09/20/02 Received: 09/23/02 |          |          |         |       |
| % Solids                                | 92.2   | 0.0100             | % by Weight | 1        | Gravimetry                           | 09/26/02 | 09/26/02 | 2090091 |       |
| <b>1W5 (P2I0630-02) Soil</b>            |        |                    |             |          | Sampled: 09/23/02 Received: 09/23/02 |          |          |         |       |
| % Solids                                | 84.7   | 0.0100             | % by Weight | 1        | Gravimetry                           | 09/26/02 | 09/26/02 | 2090091 |       |

North Creek Analytical - Portland

Lisa Domenighini, Project Manager

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**Environmental Laboratory Network**

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POPT1S603133



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Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Levi Fernandes

Reported:  
09/26/02 15:11

Semivolatile Petroleum Products by NW TPH-Dx Quality Control

North Creek Analytical - Spokane

| Analyte | Result | Reporting<br>Limit | Units | Spike<br>Level | Source<br>Result | %REC<br>Limits | RPD | RPD<br>Limit | Notes |
|---------|--------|--------------------|-------|----------------|------------------|----------------|-----|--------------|-------|
|---------|--------|--------------------|-------|----------------|------------------|----------------|-----|--------------|-------|

Batch 2090089 - EPA 3550B

Blank (2090089-BLK1)

Prepared: 09/25/02 Analyzed: 09/26/02

|                           |    |      |       |
|---------------------------|----|------|-------|
| Diesel Range Hydrocarbons | ND | 25.0 | mg/kg |
| Lube Oil                  | ND | 50.0 | "     |

|                       |      |   |      |     |        |
|-----------------------|------|---|------|-----|--------|
| Surr: 2-FBP           | 7.16 | " | 6.67 | 107 | 50-150 |
| Surr: p-Terphenyl-d14 | 7.46 | " | 6.67 | 112 | 50-150 |

LCS (2090089-BS1)

Prepared: 09/25/02 Analyzed: 09/26/02

|                           |      |      |       |      |        |        |
|---------------------------|------|------|-------|------|--------|--------|
| Diesel Range Hydrocarbons | 82.6 | 25.0 | mg/kg | 83.3 | 99.2   | 50-150 |
| Surr: 2-FBP               | 7.66 | "    | 6.67  | 115  | 50-150 |        |
| Surr: p-Terphenyl-d14     | 7.87 | "    | 6.67  | 118  | 50-150 |        |

Matrix Spike (2090089-MS1)

Source: P210630-01

Prepared: 09/25/02 Analyzed: 09/26/02

|                           |      |      |           |      |        |     |        |
|---------------------------|------|------|-----------|------|--------|-----|--------|
| Diesel Range Hydrocarbons | 117  | 25.0 | mg/kg dry | 90.4 | ND     | 111 | 50-150 |
| Surr: 2-FBP               | 9.95 | "    | 7.24      | 137  | 50-150 |     |        |
| Surr: p-Terphenyl-d14     | 9.25 | "    | 7.23      | 128  | 50-150 |     |        |

Matrix Spike Dup (2090089-MSD1)

Source: P210630-01

Prepared: 09/25/02 Analyzed: 09/26/02

|                           |      |      |           |      |        |      |        |      |    |
|---------------------------|------|------|-----------|------|--------|------|--------|------|----|
| Diesel Range Hydrocarbons | 105  | 25.0 | mg/kg dry | 90.4 | ND     | 97.2 | 50-150 | 10.8 | 25 |
| Surr: 2-FBP               | 8.44 | "    | 7.24      | 117  | 50-150 |      |        |      |    |
| Surr: p-Terphenyl-d14     | 9.79 | "    | 7.23      | 135  | 50-150 |      |        |      |    |

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Lisa Domenighini, Project Manager

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Environmental Laboratory Network

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POPT1S603134



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Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Levi Fernandes

Reported:  
09/26/02 15:11

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring - Quality Control

North Creek Analytical - Spokane

| Analyte | Result | Reporting<br>Limit | Units | Spike<br>Level | Source<br>Result | %REC | %REC<br>Limits | RPD | RPD<br>Limit | Notes |
|---------|--------|--------------------|-------|----------------|------------------|------|----------------|-----|--------------|-------|
|---------|--------|--------------------|-------|----------------|------------------|------|----------------|-----|--------------|-------|

Batch 2090084 - EPA 3550B

Blank (2090084-BLK1)

Prepared: 09/25/02 Analyzed: 09/26/02

|                          |    |        |       |
|--------------------------|----|--------|-------|
| Naphthalene              | ND | 0.0100 | mg/kg |
| Acenaphthylene           | ND | 0.0100 | "     |
| Acenaphthene             | ND | 0.0100 | "     |
| Fluorene                 | ND | 0.0100 | "     |
| Phenanthrene             | ND | 0.0100 | "     |
| Anthracene               | ND | 0.0100 | "     |
| Fluoranthene             | ND | 0.0100 | "     |
| Pyrene                   | ND | 0.0100 | "     |
| Benzo (a) anthracene     | ND | 0.0100 | "     |
| Chrysene                 | ND | 0.0100 | "     |
| Benzo (b) fluoranthene   | ND | 0.0100 | "     |
| Benzo (k) fluoranthene   | ND | 0.0100 | "     |
| Benzo (a) pyrene         | ND | 0.0100 | "     |
| Dibenzo (a,h) anthracene | ND | 0.0100 | "     |
| Indeno (1,2,3-cd) pyrene | ND | 0.0100 | "     |
| Benzo (ghi) perylene     | ND | 0.0100 | "     |

|                       |       |   |       |      |          |
|-----------------------|-------|---|-------|------|----------|
| Surr: Nitrobenzene-d5 | 0.309 | " | 0.333 | 92.8 | 30.9-139 |
| Surr: 2-FBP           | 0.303 | " | 0.333 | 91.0 | 27.1-135 |
| Surr: p-Terphenyl-d14 | 0.337 | " | 0.333 | 101  | 52.4-135 |

LCS (2090084-BS1)

Prepared: 09/25/02 Analyzed: 09/26/02

|                          |       |        |       |       |      |          |
|--------------------------|-------|--------|-------|-------|------|----------|
| Naphthalene              | 0.105 | 0.0100 | mg/kg | 0.167 | 62.9 | 46.3-135 |
| Fluorene                 | 0.133 | 0.0100 | "     | 0.167 | 79.6 | 47.6-135 |
| Chrysene                 | 0.138 | 0.0100 | "     | 0.167 | 82.6 | 38.5-135 |
| Indeno (1,2,3-cd) pyrene | 0.133 | 0.0100 | "     | 0.167 | 79.6 | 37.8-135 |

|                       |       |   |       |      |          |
|-----------------------|-------|---|-------|------|----------|
| Surr: Nitrobenzene-d5 | 0.271 | " | 0.333 | 81.4 | 30.9-139 |
| Surr: 2-FBP           | 0.283 | " | 0.333 | 85.0 | 27.1-135 |
| Surr: p-Terphenyl-d14 | 0.308 | " | 0.333 | 92.5 | 52.4-135 |

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Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Levi Fernandes

Reported:  
09/26/02 15:11

Polynuclear Aromatic Compounds by GC/MS with Selected Ion Monitoring Quality Control

North Creek Analytical - Spokane

| Analyte                                | Result | Reporting Limit           | Units     | Spike Level               | Source Result | %REC                      | %REC Limits | RPD  | RPD Limit | Notes |
|--|--------|---------------------------|-----------|---------------------------|---------------|---------------------------|-------------|------|-----------|-------|
| <b>Batch 2090084 - EPA 3550B</b>       |        |                           |           |                           |               |                           |             |      |           |       |
| <b>Matrix Spike (2090084-MS1)</b>      |        | <b>Source: S209063-01</b> |           | <b>Prepared: 09/25/02</b> |               | <b>Analyzed: 09/26/02</b> |             |      |           |       |
| Naphthalene                            | 38.1   | 0.100                     | mg/kg dry | 0.186                     | 38.3          | -108                      | 46.3-135    |      |           | Q-03  |
| Fluorene                               | 0.811  | 0.100                     | "         | 0.186                     | 0.722         | 47.8                      | 47.6-135    |      |           |       |
| Chrysene                               | 0.179  | 0.100                     | "         | 0.186                     | ND            | 96.2                      | 38.5-135    |      |           |       |
| Indeno (1,2,3-cd) pyrene               | 0.216  | 0.100                     | "         | 0.186                     | ND            | 84.1                      | 37.8-135    |      |           |       |
| Surr: Nitrobenzene-d5                  | 0.491  |                           | "         | 0.372                     |               | 132                       | 30.9-139    |      |           |       |
| Surr: 2-FBP                            | 0.365  |                           | "         | 0.372                     |               | 98.1                      | 27.1-135    |      |           |       |
| Surr: p-Terphenyl-d14                  | 0.357  |                           | "         | 0.372                     |               | 96.0                      | 52.4-135    |      |           |       |
| <b>Matrix Spike Dup (2090084-MSD1)</b> |        | <b>Source: S209063-01</b> |           | <b>Prepared: 09/25/02</b> |               | <b>Analyzed: 09/26/02</b> |             |      |           |       |
| Naphthalene                            | 28.2   | 0.100                     | mg/kg dry | 0.186                     | 38.3          | -5430                     | 46.3-135    | 29.9 | 25        | Q-03  |
| Fluorene                               | 0.714  | 0.100                     | "         | 0.186                     | 0.722         | -4.30                     | 47.6-135    | 12.7 | 25        | Q-01  |
| Chrysene                               | 0.149  | 0.100                     | "         | 0.186                     | ND            | 80.1                      | 38.5-135    | 18.3 | 25        |       |
| Indeno (1,2,3-cd) pyrene               | 0.179  | 0.100                     | "         | 0.186                     | ND            | 64.2                      | 37.8-135    | 18.7 | 25        |       |
| Surr: Nitrobenzene-d5                  | 0.327  |                           | "         | 0.372                     |               | 87.9                      | 30.9-139    |      |           |       |
| Surr: 2-FBP                            | 0.320  |                           | "         | 0.372                     |               | 86.0                      | 27.1-135    |      |           |       |
| Surr: p-Terphenyl-d14                  | 0.320  |                           | "         | 0.372                     |               | 86.0                      | 52.4-135    |      |           |       |

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*Lisa Domenighini*

Lisa Domenighini, Project Manager

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POPT1S603136





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Hart Crowser  
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Lake Oswego, OR 97035

Project: POP - T-1  
Project Number: 15230-04  
Project Manager: Levi Fernandes

Reported:  
09/26/02 15:11

#### Notes and Definitions

- Q-01 The spike recovery for this QC sample is outside of NCA established control limits. Review of associated batch QC indicates the recovery for this analyte does not represent an out-of-control condition for the batch.
- Q-03 The spike recovery for this QC sample cannot be accurately calculated due to high concentration of analyte in the sample.
- S-01 The surrogate recovery for this sample is not available due to sample dilution required from high analyte concentration.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis. MRLs are adjusted if %Solids are less than 50%.
- wet Sample results reported on a wet weight basis (as received)
- RPD Relative Percent Difference

North Creek Analytical - Portland

Lisa Domenighini, Project Manager

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POPT1S603137



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(509) 924-9200 FAX 924-9290  
(503) 906-9200 FAX 906-9210  
(541) 383-9310 FAX 382-7588



# CHAIN OF CUSTODY REPORT

Work Order #: **PAID 630**

|  |                      |                              |          |   |  |                      |  |                  |            |                          |           |
|--|----------------------|------------------------------|----------|---|--|----------------------|--|------------------|------------|--------------------------|-----------|
| CLIENT: <b>Port of Portland / Hurt Crowder</b>                             |                      | INVOICE TO:                  |          | <b>TURNAROUND REQUEST in Business Days*</b><br>Organic & Inorganic Analyses<br>10 7 5 4 3 2 1 <1<br>STD. Petroleum Hydrocarbon Analyses<br>5 4 3 2 1 <1<br>STD. Please Specify<br><b>OTHER</b><br>*Turnaround Requests less than standard may incur Rush Charges. |  |                      |  |                  |            |                          |           |
| REPORT TO: <b>Levi Fernandez</b>   |                      | P.O. NUMBER: <b>15230-04</b> |          |   |  |                      |  |                  |            |                          |           |
| ADDRESS: <b>Five Centerpoint Drive Suite 240<br/>Lake Oswego, OR 97035</b> |                      | REQUESTED ANALYSES           |          |   |  |                      |  |                  |            |                          |           |
| PHONE: <b>503-620-7284</b> FAX: <b>503-620-6918</b>                        |                      |                              |          |   |  |                      |  |                  |            |                          |           |
| PROJECT NAME: <b>Terminal 1</b>  |                      |                              |          |   |  |                      |  |                  |            |                          |           |
| PROJECT NUMBER: <b>15230-04</b>  |                      |                              |          |   |  |                      |  |                  |            |                          |           |
| SAMPLED BY: <b>L. Fernandez / Cyrus Bullock</b>                            |                      |                              |          |   |  |                      |  |                  |            |                          |           |
| CLIENT SAMPLE IDENTIFICATION   | SAMPLING DATE/TIME   | PAHs<br>STD-320              | TPH-Dx   |   |  |                      |  | MATRIX (W, S, O) | # OF CONT. | COMMENTS                 | NCA WO ID |
| 1. <b>T1-3ESE3 (U-3)</b>   | <b>9/20/02 13:25</b> | <b>X</b>                     | <b>X</b> |   |  |                      |  | <b>Soil</b>      | <b>2</b>   | <b>Send PAH's</b>        |           |
| 2. <b>1W5</b>  | <b>9/23/02 12:15</b> | <b>X</b>                     | <b>X</b> |   |  |                      |  | <b>↓</b>         | <b>2</b>   | <b>up to subcontract</b> |           |
| 3. <b>1W6</b>  | <b>9/23/02 11:37</b> | <b>X</b>                     | <b>X</b> |   |  |                      |  | <b>↓</b>         | <b>2</b>   | <b>lab, Hold until</b>   |           |
| 4.   |                      |                              |          |   |  |                      |  |                  |            | <b>told by HC to</b>     |           |
| 5.   |                      |                              |          |   |  |                      |  |                  |            | <b>run PAH analysis.</b> |           |
| 6.   |                      |                              |          |   |  |                      |  |                  |            | <b>Liza D per</b>        |           |
| 7.   |                      |                              |          |   |  |                      |  |                  |            | <b>telephone</b>         |           |
| 8.   |                      |                              |          |   |  |                      |  |                  |            | <b>convers. MDA</b>      |           |
| 9.   |                      |                              |          |   |  |                      |  |                  |            | <b>9/23/02.</b>          |           |
| 10.  |                      |                              |          |   |  |                      |  |                  |            | <b>Put hold on</b>       |           |
| 11.  |                      |                              |          |   |  |                      |  |                  |            | <b>TPH-Dx also</b>       |           |
| 12.  |                      |                              |          |   |  |                      |  |                  |            | <b>until advised</b>     |           |
| 13.  |                      |                              |          |   |  |                      |  |                  |            | <b>by HC.</b>            |           |
| 14.  |                      |                              |          |   |  |                      |  |                  |            |                          |           |
| 15.  |                      |                              |          |   |  |                      |  |                  |            |                          |           |
| RELINQUISHED BY:   |                      | DATE: <b>9/23/02</b>         |          | RECEIVED BY: <b>Erica Dakan</b>   |  | DATE: <b>9/23/02</b> |  |                  |            |                          |           |
| PRINT NAME: <b>Cyrus Bullock</b>   |                      | FIRM: <b>Hurt Crowder</b>    |          | PRINT NAME: <b>Erica Dakan</b>  |  | FIRM: <b>NCA</b>     |  |                  |            |                          |           |
| RELINQUISHED BY:   |                      | DATE:                        |          | RECEIVED BY:  |  | DATE:                |  |                  |            |                          |           |
| PRINT NAME:  |                      | FIRM:                        |          | PRINT NAME:   |  | FIRM:                |  |                  |            |                          |           |
| ADDITIONAL REMARKS:  |                      |                              |          |   |  |                      |  |                  |            |                          |           |
| COC REV 3/89   |                      |                              |          |   |  |                      |  |                  |            |                          |           |
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**APPENDIX F**  
**RESIDUAL RISK ASSESSMENT TABLES**

**Table F-1 - Exposure Point Concentrations: Soil and Groundwater**  
**Marine Terminal 1 South Parcel 2 Residual Risk Assessment**  
**Terminal 1 South Removal Action Report**  
**Portland, Oregon**

| Analyte                                  | Detection Frequency | SQL Range (Min-Max) | Detect Range (Min-Max) | Sample ID of Maximum Detection | Distribution   | 90 % UCL | Arithmetic Mean | EPC     |         |
|--|---------------------|---------------------|------------------------|--------------------------------|----------------|----------|-----------------|---------|---------|
|  |                     |                     |                        |                                |                |          |                 | RME     | CT      |
| PARCEL 2: SURFACE SOIL (0 to 3 feet bgs) |                     |                     |                        |                                |                |          |                 |         |         |
| PAHs in mg/kg                            |                     |                     |                        |                                |                |          |                 |         |         |
| Benzo(a)anthracene                       | 9/15                | 0.01 - 0.0134       | 0.0162 - 0.228         | T1-3SE4(0-3)                   | Lognormal      | 1.2E-01  | 4.8E-02         | 1.2E-01 | 4.8E-02 |
| Benzo(a)pyrene                           | 9/15                | 0.01 - 0.0134       | 0.0198 - 0.311         | T1-3SE4(0-3)                   | Lognormal      | 1.4E-01  | 5.4E-02         | 1.4E-01 | 5.4E-02 |
| Benzo(b)fluoranthene                     | 7/15                | 0.01 - 0.067        | 0.0135 - 0.181         | T1-3SE4(0-3)                   | Weak Lognormal | 6.5E-02  | 3.4E-02         | 6.5E-02 | 3.4E-02 |
| Dibenz(a,h)anthracene                    | 3/15                | 0.01 - 0.067        | 0.0127 - 0.0277        | T1-3SE4(0-3)                   | Assm Lognormal | 1.7E-02  | 1.2E-02         | 1.7E-02 | 1.2E-02 |
| Indeno(1,2,3-cd)pyrene                   | 7/15                | 0.01 - 0.067        | 0.0135 - 0.354         | T1-3SE4(0-3)                   | Weak Lognormal | 8.1E-02  | 4.3E-02         | 8.1E-02 | 4.3E-02 |
| PARCEL 2: GROUNDWATER                    |                     |                     |                        |                                |                |          |                 |         |         |
| Chloroform                               | 1/7                 | 1.0                 | 2.09                   | MW-5                           | Maximum        | 2.1E+00  | 7.3E-01         | 2.1E+00 | 7.3E-01 |

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**Notes:**

**Acronyms and Abbreviations:**

EPC = Exposure point concentration.

PAHs = Polynuclear aromatic hydrocarbons.

RME = Reasonable maximum exposure.

CT = Central Tendency.

UCL = Upper confidence limit on the mean.

**Table F-2 - Exposure Dose Equations and Exposure Factor Values: Soil Ingestion  
Marine Terminal 1 South Parcel 2 Residual Risk Assessment  
Terminal 1 South Removal Action Report  
Portland, Oregon**

| $\text{LADD}^a(\text{mg/kg-d}) = \frac{C_{\text{soil}} \times \text{IRS} \times \text{CF} \times \text{EF} \times \text{ED}}{\text{BW} \times \text{At}_{\text{carc}}}$ |                               |                               |
|---|-------------------------------|-------------------------------|
| $\text{ADD}^b(\text{mg/kg-d}) = \frac{C_{\text{soil}} \times \text{IRS} \times \text{CF} \times \text{EF} \times \text{ED}}{\text{BW} \times \text{At}_{\text{non}}}$   |                               |                               |
| EXPOSURE FACTOR (units)   | RME <sup>e</sup> Value        | CT <sup>f</sup> Value         |
| $C_{\text{soil}}$ = Chemical concentration in soil (mg/kg)  | $\text{UCL}_{90}^c$           | Arithmetic Mean               |
| CF = Conversion factor (kg/mg)  | $10^{-6}$                     | $10^{-6}$                     |
| IRS = Incidental Soil Ingestion Rate (mg/d)   |                               |                               |
| Commercial Worker   | $100^d$                       | $50^d$                        |
| Urban Resident – Adult  | $100^g$                       | $50^g$                        |
| Urban Resident – Child  | $200^g$                       | $100^g$                       |
| EF = Exposure frequency (days/year)   |                               |                               |
| Commercial Worker   | $250^d$                       | $250^d$                       |
| Urban Resident – Adult/Child  | $90^g$                        | $40^g$                        |
| ED = Exposure duration (year)   |                               |                               |
| Commercial Worker   | $25^d$                        | $6^d$                         |
| Urban Resident – Adult  | $11^g$                        | $4^g$                         |
| Urban Resident – Child  | $6^g$                         | $4^g$                         |
| BW = Body weight (kg)   |                               |                               |
| Adult   | $70^d$                        | $70^d$                        |
| Child   | $15^d$                        | $15^d$                        |
| $\text{At}_{\text{carc}}$ = Averaging time for carcinogens (days)   | $25,550^d$                    | $25,550^d$                    |
| $\text{At}_{\text{non}}$ = Averaging time for noncarcinogens (days)   | ED (years) x 365<br>days/year | ED (years) x 365<br>days/year |

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**Notes:**

- (a) Lifetime average daily dose, the intake value used to evaluate potential carcinogenic effects. For the residential evaluation, the adult and child intakes will be combined as recommended in Appendix A, Section A.0 of DEQ guidance (2000).
- (b) Average daily dose, the intake value used to evaluate potential noncarcinogenic effects.
- (c) An upper one-sided 90 percent confidence limit of the mean or the maximum concentration (whichever is lower) used for the RME.
- (d) DEQ (December 2000).
- (e) Reasonable maximum exposure.
- (f) Central Tendency.
- (g) Site Specific Urban Residential Exposure Factor Values Approved By DEQ

**Table F-3 - Exposure Dose Equations and Exposure Factor Values:  
Dermal Contact with Soil  
Marine Terminal 1 South Parcel 2 Residual Risk Assessment  
Terminal 1 South Removal Action Report  
Portland, Oregon**

| $\text{LADD}^a \text{ (mg/kg-d)} = \frac{C_{\text{soil}} \times \text{AF} \times \text{SA} \times \text{DAF} \times \text{EF} \times \text{ED} \times \text{CF}}{\text{BW} \times \text{AT}_{\text{carc}}}$ |   |   |
|---|---|---|
| $\text{ADD}^b \text{ (mg/kg-d)} = \frac{C_{\text{soil}} \times \text{AF} \times \text{SA} \times \text{DAF} \times \text{EF} \times \text{ED} \times \text{CF}}{\text{BW} \times \text{AT}_{\text{non}}}$   |   |   |
| Exposure Factor (units)   | RME <sup>c</sup> Value                  | CT <sup>f</sup> Value                   |
| $C_{\text{soil}}$ = Chemical concentration in soil (mg/kg)  | UCL <sub>90</sub> <sup>c</sup>          | Arithmetic Mean                         |
| AF = Soil-to-skin adherence factor (mg/cm <sup>2</sup> -event)  | Commercial Worker                       | 0.08 <sup>d</sup>                       |
|   | Urban Resident – Adult                  | 0.01 <sup>g</sup>                       |
|   | Urban Resident – Child                  | 0.04 <sup>g</sup>                       |
| SA = Skin surface area (cm <sup>2</sup> /day)   | Commercial Worker                       | 3200 <sup>d</sup>                       |
|   | Urban Resident – Adult                  | 5700 <sup>g</sup>                       |
|   | Urban Resident – Child                  | 2800 <sup>g</sup>                       |
| DAF = Dermal absorption factor (unitless)   | Chemical-specific                       | Chemical-specific                       |
| EF = Exposure frequency (days/year)   | Commercial Worker                       | 250 <sup>d</sup>                        |
|   | Urban Resident – Adult/Child            | 40 <sup>g</sup>                         |
| ED = Exposure duration (years)  | Commercial Worker                       | 6 <sup>d</sup>                          |
|   | Urban Resident – Adult                  | 4 <sup>g</sup>                          |
|   | Urban Resident – Child                  | 4 <sup>g</sup>                          |
| CF = Conversion factor (kg/mg)  | 10 <sup>-6</sup>                        | 10 <sup>-6</sup>                        |
| BW = Body weight (kg)   | Adult                                   | 70 <sup>d</sup>                         |
|   | Child                                   | 15 <sup>d</sup>                         |
| AT <sub>carc</sub> = Averaging time for carcinogens (days)  | 25,550 <sup>d</sup>                     | 25,550 <sup>d</sup>                     |
| AT <sub>non</sub> = Averaging time for noncarcinogens (days)  | ED (years) x 365 days/year <sup>d</sup> | ED (years) x 365 days/year <sup>d</sup> |

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**Notes:**

<sup>(a)</sup> Lifetime absorbed daily dose, intake value used to evaluate potential carcinogenic effects. For the residential evaluation, the adult and child intakes will be combined as recommended in Appendix A, Section A.0 of DEQ guidance (2000).

<sup>(b)</sup> Absorbed daily dose, intake value used to evaluate potential noncarcinogenic effects.

<sup>(c)</sup> An upper one-sided 90 percent confidence limit of the mean or the maximum concentration (whichever is lower) was used for the RME.

<sup>(d)</sup> DEQ (December 2000).

<sup>(e)</sup> Reasonable maximum exposure.

<sup>(f)</sup> Central Tendency.

<sup>(g)</sup> Site Specific Urban Residential Exposure Factor Values Approved By DEQ

**Table F-4 - Exposure Dose Equations and Exposure Factor Values:  
Inhalation of Volatiles  
Marine Terminal 1 South Parcel 2 Residual Risk Assessment  
Terminal 1 South Removal Action Report  
Portland, Oregon**

| $\text{LADD}^a (\text{mg/kg-d}) = \frac{C_{\text{air}} \times \text{IR} \times \text{EF} \times \text{ED}}{\text{BW} \times \text{At}_{\text{carc}}}$ $\text{ADD}^b (\text{mg/kg-d}) = \frac{C_{\text{air}} \times \text{IR} \times \text{EF} \times \text{ED}}{\text{BW} \times \text{At}_{\text{non}}}$ |  |  |
|---|--|--|
| Exposure Factor (units)   | RME <sup>f</sup> Value                                   | CT <sup>g</sup> Value                                    |
| $C_{\text{air}}^d$ = Chemical concentration in air (mg/m <sup>3</sup> )   | UCL <sub>90</sub> <sup>c</sup>                           | Arithmetic Mean  |
| IR = Inhalation rate (m <sup>3</sup> /day)<br>Commercial Worker<br>Urban Resident – Adult<br>Urban Resident – Child   | 15.2 <sup>e</sup><br>20 <sup>h</sup><br>8.3 <sup>h</sup> | 15.2 <sup>e</sup><br>20 <sup>h</sup><br>8.3 <sup>h</sup> |
| EF = Exposure frequency (days/year)<br>Commercial Worker<br>Urban Resident – Adult/Child  | 250 <sup>e</sup><br>350 <sup>h</sup>                     | 250 <sup>e</sup><br>350 <sup>h</sup>                     |
| ED = Exposure duration (years)<br>Commercial Worker<br>Urban Resident – Adult<br>Urban Resident – Child   | 25 <sup>e</sup><br>11 <sup>h</sup><br>6 <sup>h</sup>     | 6 <sup>e</sup><br>4 <sup>h</sup><br>4 <sup>h</sup>       |
| BW = Body weight (kg)<br>Adult<br>Child   | 70 <sup>e</sup><br>15 <sup>e</sup>                       | 70 <sup>e</sup><br>15 <sup>e</sup>                       |
| AT <sub>carc</sub> = Averaging time for carcinogens (days)  | 25,550 <sup>e</sup>                                      | 25,550 <sup>e</sup>                                      |
| At <sub>non</sub> = Averaging time for noncarcinogens (days)  | ED (years) x 365 days/year                               | ED (years) x 365 days/year                               |

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**Notes:**

- (<sup>a</sup>) Lifetime average daily dose, intake value used to evaluate potential carcinogenic effects. For the residential evaluation, the adult and child intakes will be combined as recommended in Appendix A, Section A.0 of DEQ guidance (2000).  
 (<sup>b</sup>) Average daily dose, intake value used to evaluate potential noncarcinogenic effects.  
 (<sup>c</sup>) Upper one-sided 90 percent confidence limit of the mean or the maximum concentration (whichever is lower) was used for the RME.  
 (<sup>d</sup>)  $C_{\text{air}}$  was derived from soil and groundwater concentrations using models discussed in DEQ guidance (1999 and 2000).  
 (<sup>e</sup>) DEQ (December 2000).  
 (<sup>f</sup>) Reasonable maximum exposure.  
 (<sup>g</sup>) Central Tendency.  
 (<sup>h</sup>) Site Specific Urban Residential Exposure Factor Values Approved By DEQ

**Table F-5 - Exposure Dose Equations and Exposure Factor Values:  
Inhalation of Dust  
Marine Terminal 1 South Parcel 2 Residual Risk Assessment  
Terminal 1 South Removal Action Report  
Portland, Oregon**

| $\text{LADD}^a \text{ (mg/kg-d)} = \frac{\text{PM}_{10} \times \text{IR} \times \text{EF} \times \text{ED}}{\text{BW} \times \text{At}_{\text{carc}}}$ $\text{ADD}^b \text{ (mg/kg-d)} = \frac{\text{PM}_{10} \times \text{IR} \times \text{EF} \times \text{ED}}{\text{BW} \times \text{At}_{\text{non}}}$ |                                |                            |
|---|--------------------------------|----------------------------|
| Exposure Factor (units)   | RME <sup>f</sup> Value         | CT <sup>g</sup> Value      |
| $\text{PM}_{10}^d$ = Respirable particulate concentration in air (mg/m <sup>3</sup> )   | UCL <sub>90</sub> <sup>c</sup> | Arithmetic Mean            |
| IR = Inhalation rate (m <sup>3</sup> /day)  |                                |                            |
| Commercial Worker   | 15.2 <sup>e</sup>              | 15.2 <sup>e</sup>          |
| Urban Resident – Adult  | 20 <sup>h</sup>                | 20 <sup>h</sup>            |
| Urban Resident – Child  | 8.3 <sup>h</sup>               | 8.3 <sup>h</sup>           |
| EF = Exposure frequency (days/year)   |                                |                            |
| Commercial Worker   | 250 <sup>e</sup>               | 250 <sup>e</sup>           |
| Urban Resident – Adult/Child  | 350 <sup>h</sup>               | 350 <sup>h</sup>           |
| ED = Exposure duration (years)  |                                |                            |
| Commercial Worker   | 25 <sup>e</sup>                | 6 <sup>e</sup>             |
| Urban Resident – Adult  | 11 <sup>h</sup>                | 4 <sup>h</sup>             |
| Urban Resident – Child  | 6 <sup>h</sup>                 | 4 <sup>h</sup>             |
| BW = Body weight (kg)   |                                |                            |
| Adult   | 70 <sup>e</sup>                | 70 <sup>e</sup>            |
| Child   | 15 <sup>e</sup>                | 15 <sup>e</sup>            |
| AT <sub>carc</sub> = Averaging time for carcinogens (days)  | 25,550 <sup>e</sup>            | 25,550 <sup>e</sup>        |
| At <sub>non</sub> = Averaging time for noncarcinogens (days)  | ED (years) x 365 days/year     | ED (years) x 365 days/year |

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**Notes:**

- <sup>(a)</sup> Lifetime average daily dose, intake value used to evaluate potential carcinogenic effects. For the residential evaluation, the adult and child intakes will be combined as recommended in Appendix A, Section A.0 of DEQ guidance (2000).
- <sup>(b)</sup> Average daily dose, intake value used to evaluate potential noncarcinogenic effects.
- <sup>(c)</sup> Upper one-sided 90 percent confidence limit of the mean or the maximum concentration (whichever is lower) was used for the RME.
- <sup>(d)</sup> PM<sub>10</sub> was derived using the Particulate Emission Factor equation presented in DEQ guidance (2000).
- <sup>(e)</sup> DEQ (December 2000).
- <sup>(f)</sup> Reasonable maximum exposure.
- <sup>(g)</sup> Central Tendency.
- <sup>(h)</sup> Site Specific Urban Residential Exposure Factor Values Approved By DEQ.



Table F-6 - Parcel 2 Urban Resident Residual Risk Calculations (Surface Soil)

Sheet 1 of 5

Soil Ingestion

Marine Terminal 1 South Parcel 2 Residual Risk Assessment

Terminal 1 South Removal Action Report

Portland, Oregon

| Compounds of Potential Concern | Soil EPC in mg/kg |         | Hazard Intake in mg/kg-day |         | Hazard Quotient |        | Cancer Intake in mg/kg-day |         | Cancer Risk |         |
|--------------------------------|-------------------|---------|----------------------------|---------|-----------------|--------|----------------------------|---------|-------------|---------|
|                                | RME               | CT      | RME                        | CT      | RME             | CT     | RME                        | CT      | RME         | CT      |
| PAHs                           |                   |         |                            |         |                 |        |                            |         |             |         |
| Benzo(a)anthracene             | 1.2E-01           | 4.8E-02 | 3.9E-07                    | 3.5E-08 | --              | --     | 4.0E-08                    | 2.2E-09 | 2.9E-08     | 1.6E-09 |
| Benzo(a)pyrene                 | 1.4E-01           | 5.4E-02 | 4.7E-07                    | 3.9E-08 | --              | --     | 4.9E-08                    | 2.5E-09 | 3.5E-07     | 1.8E-08 |
| Benzo(b)fluoranthene           | 6.5E-02           | 3.4E-02 | 2.1E-07                    | 2.5E-08 | --              | --     | 2.2E-08                    | 1.6E-09 | 1.6E-08     | 1.1E-09 |
| Dibenz(a,h)anthracene          | 1.7E-02           | 1.2E-02 | 5.6E-08                    | 8.8E-09 | --              | --     | 5.7E-09                    | 5.5E-10 | 4.2E-08     | 4.0E-09 |
| Indeno(1,2,3-cd)pyrene         | 8.1E-02           | 4.3E-02 | 2.7E-07                    | 3.1E-08 | --              | --     | 2.7E-08                    | 2.0E-09 | 2.0E-08     | 1.5E-09 |
| TOTAL HAZARD INDEX             |                   |         |                            |         | 0.E+00          | 0.E+00 | TOTAL CANCER RISK          |         | 5.E-07      | 3.E-08  |

Notes:

RME = Reasonable Maximum Exposure.

CT = Central Tendency.

EPC = Exposure Point Concentration.

**Table F-6 - Parcel 2 Urban Resident Residual Risk Calculations (Surface Soil)**

Sheet 2 of 5

**Dermal Contact with Soil**

**Marine Terminal 1 South Parcel 2 Residual Risk Assessment**

**Terminal 1 South Removal Action Report**

**Portland, Oregon**

| Compounds of Potential Concern | ABS  | Soil EPC in mg/kg |         | Hazard Intake in mg/kg-day |         | Hazard Quotient |               | Cancer Intake in mg/kg-day |         | Cancer Risk   |               |
|--------------------------------|------|-------------------|---------|----------------------------|---------|-----------------|---------------|----------------------------|---------|---------------|---------------|
|                                |      | RME               | CT      | RME                        | CT      | RME             | CT            | RME                        | CT      | RME           | CT            |
| <b>PAHs</b>                    |      |                   |         |                            |         |                 |               |                            |         |               |               |
| Benzo(a)anthracene             | 0.13 | 1.2E-01           | 4.8E-02 | 1.4E-07                    | 5.1E-09 | --              | --            | 1.6E-08                    | 3.2E-10 | 1.1E-08       | 2.4E-10       |
| Benzo(a)pyrene                 | 0.13 | 1.4E-01           | 5.4E-02 | 1.7E-07                    | 5.7E-09 | --              | --            | 1.9E-08                    | 3.6E-10 | 1.4E-07       | 2.7E-09       |
| Benzo(b)fluoranthene           | 0.13 | 6.5E-02           | 3.4E-02 | 7.8E-08                    | 3.6E-09 | --              | --            | 8.5E-09                    | 2.3E-10 | 6.2E-09       | 1.7E-10       |
| Dibenz(a,h)anthracene          | 0.13 | 1.7E-02           | 1.2E-02 | 2.0E-08                    | 1.3E-09 | --              | --            | 2.2E-09                    | 8.1E-11 | 1.6E-08       | 5.9E-10       |
| Indeno(1,2,3-cd)pyrene         | 0.13 | 8.1E-02           | 4.3E-02 | 9.7E-08                    | 4.6E-09 | --              | --            | 1.1E-08                    | 2.9E-10 | 7.8E-09       | 2.1E-10       |
| <b>TOTAL HAZARD INDEX</b>      |      |                   |         |                            |         | <b>0.E+00</b>   | <b>0.E+00</b> | <b>TOTAL CANCER RISK</b>   |         | <b>2.E-07</b> | <b>4.E-09</b> |

**Notes:**

ABS = Dermal Absorption Factor (EPA, 1998).

RME = Reasonable Maximum Exposure.

CT = Central Tendency.

EPC = Exposure Point Concentration.

**Table F-6 - Parcel 2 Urban Resident Residual Risk Calculations (Surface Soil)**

Sheet 3 of 5

Vapor Inhalation (Indoor Air)

Marine Terminal 1 South Parcel 2 Residual Risk Assessment

Terminal 1 South Removal Action Report

Portland, Oregon

| Compounds of Potential Concern | Indoor Air EPC In<br>mg/m <sup>3</sup> |         | Hazard Intake in<br>mg/kg-day |         | Hazard Quotient |         | Cancer Intake in<br>mg/kg-day |         | Cancer Risk |         |
|--------------------------------|--|---------|-------------------------------|---------|-----------------|---------|-------------------------------|---------|-------------|---------|
|                                | RME                                    | CT      | RME                           | CT      | RME             | CT      | RME                           | CT      | RME         | CT      |
| Volatile Organic Compounds     |  |         |                               |         |                 |         |                               |         |             |         |
| Chloroform                     | 2.8E-06                                | 9.7E-07 | 1.5E-06                       | 5.1E-07 | 1.7E-02         | 6.0E-03 | 2.5E-07                       | 4.5E-08 | 2.0E-08     | 3.6E-09 |
| TOTAL HAZARD INDEX             |  |         |                               |         | 2.E-02          | 6.E-03  | TOTAL CANCER RISK             |         | 2.E-08      | 4.E-09  |

**Notes:**

Indoor Air EPC modeled from maximum detected groundwater concentration using DEQ's RBDM Guidance (DEQ, 2001b).

Outdoor Air not evaluated since indoor air risks and hazards were acceptable.

RME = Reasonable Maximum Exposure.

CT = Central Tendency.

EPC = Exposure Point Concentration.

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**Table F-6 - Parcel 2 Urban Resident Residual Risk Calculations (Surface Soil)**  
**Fugitive Dust Inhalation (Outdoor Air)**  
**Marine Terminal 1 South Parcel 2 Residual Risk Assessment**  
**Terminal 1 South Removal Action Report**  
**Portland, Oregon**

Sheet 4 of 5

| Compounds of Potential Concern | PEF in m <sup>3</sup> /kg | Outdoor Air EPC in mg/m <sup>3</sup> |         | Hazard Intake in mg/kg-day |         | Hazard Quotient |               | Cancer Intake in mg/kg-day |         | Cancer Risk   |               |
|--------------------------------|---------------------------|--------------------------------------|---------|----------------------------|---------|-----------------|---------------|----------------------------|---------|---------------|---------------|
|                                |                           | RME                                  | CT      | RME                        | CT      | RME             | CT            | RME                        | CT      | RME           | CT            |
| <b>PAHs</b>                    |                           |                                      |         |                            |         |                 |               |                            |         |               |               |
| Benzo(a)anthracene             | 1.32E+09                  | 9.0E-11                              | 3.6E-11 | 4.8E-11                    | 1.9E-11 | --              | --            | 8.0E-12                    | 1.7E-12 | 2.5E-12       | 5.2E-13       |
| Benzo(a)pyrene                 | 1.32E+09                  | 1.1E-10                              | 4.1E-11 | 5.8E-11                    | 2.2E-11 | --              | --            | 9.7E-12                    | 1.9E-12 | 3.0E-11       | 5.8E-12       |
| Benzo(b)fluoranthene           | 1.32E+09                  | 4.9E-11                              | 2.6E-11 | 2.6E-11                    | 1.4E-11 | --              | --            | 4.4E-12                    | 1.2E-12 | 1.4E-12       | 3.7E-13       |
| Dibenz(a,h)anthracene          | 1.32E+09                  | 1.3E-11                              | 9.1E-12 | 6.8E-12                    | 4.8E-12 | --              | --            | 1.1E-12                    | 4.2E-13 | 3.5E-12       | 1.3E-12       |
| Indeno(1,2,3-cd)pyrene         | 1.32E+09                  | 6.1E-11                              | 3.3E-11 | 3.3E-11                    | 1.7E-11 | --              | --            | 5.4E-12                    | 1.5E-12 | 1.7E-12       | 4.6E-13       |
| <b>TOTAL HAZARD INDEX</b>      |                           |                                      |         |                            |         | <b>0.E+00</b>   | <b>0.E+00</b> | <b>TOTAL CANCER RISK</b>   |         | <b>4.E-11</b> | <b>8.E-12</b> |

**Notes:**

Outdoor Air EPC = Soil EPC (See Table 4)/PEF.

PEF = Particulate Emission Factor.

RME = Reasonable Maximum Exposure.

CT = Central Tendency.

EPC = Exposure Point Concentration.

**Table F-6 - Parcel 2 Urban Resident Residual Risk Calculations (Surface Soil)****RME and CT Risk Summary: By COPC****Marine Terminal 1 South Parcel 2 Residual Risk Assessment****Terminal 1 South Removal Action Report****Portland, Oregon**

| Exposure Scenario | COPC                   | Exposure Point Concentration | RME Cancer Risk |               |                         |                    |               | Exposure Point Concentration | CT Cancer Risk |               |                         |                    |               |
|-------------------|------------------------|------------------------------|-----------------|---------------|-------------------------|--------------------|---------------|------------------------------|----------------|---------------|-------------------------|--------------------|---------------|
|                   |                        |                              | Ingestion       | Dermal        | Inhalation of Volatiles | Inhalation of Dust | TOTAL         |                              | Ingestion      | Dermal        | Inhalation of Volatiles | Inhalation of Dust | TOTAL         |
| Urban Resident    | Benzo(a)anthracene     | 1.2E-01                      | 3.E-08          | 1.E-08        | na                      | 2.E-12             | 4.E-08        | 4.8E-02                      | 2.E-09         | 2.E-10        | na                      | 5.E-13             | 2.E-09        |
|                   | Benzo(a)pyrene         | 1.4E-01                      | 4.E-07          | 1.E-07        | na                      | 3.E-11             | 5.E-07        | 5.4E-02                      | 2.E-08         | 3.E-09        | na                      | 6.E-12             | 2.E-08        |
|                   | Benzo(b)fluoranthene   | 6.5E-02                      | 2.E-08          | 6.E-09        | na                      | 1.E-12             | 2.E-08        | 3.4E-02                      | 1.E-09         | 2.E-10        | na                      | 4.E-13             | 1.E-09        |
|                   | Dibenz(a,h)anthracene  | 1.7E-02                      | 4.E-08          | 2.E-08        | na                      | 4.E-12             | 6.E-08        | 1.2E-02                      | 4.E-09         | 6.E-10        | na                      | 1.E-12             | 5.E-09        |
|                   | Indeno(1,2,3-cd)pyrene | 8.1E-02                      | 2.E-08          | 8.E-09        | na                      | 2.E-12             | 3.E-08        | 4.3E-02                      | 1.E-09         | 2.E-10        | na                      | 5.E-13             | 2.E-09        |
|                   | Chloroform             | na                           | na              | na            | 2.E-08                  | na                 | 2.E-08        | na                           | na             | na            | 4.E-09                  | na                 | 4.E-09        |
|                   | <b>TOTAL</b>           |                              | <b>5.E-07</b>   | <b>2.E-07</b> | <b>2.E-08</b>           | <b>4.E-11</b>      | <b>7.E-07</b> |                              | <b>3.E-08</b>  | <b>4.E-09</b> | <b>4.E-09</b>           | <b>8.E-12</b>      | <b>3.E-08</b> |

F:\DATA\Jobs\Port of Portland\15191-01 T-1 Risk Assessment\Appendices\Appendix B TableB-4

**Notes:**

RME = Reasonable Maximum Exposure.

CT = Central Tendency.

COPC = Compound of Potential Concern.

na = Not Applicable.

**Table F-6 - Parcel 2 Urban Resident Residual RBC's**  
**Marine Terminal 1 South Parcel 2 Residual Risk Assessment**  
**Terminal 1 South Removal Action Report**  
**Portland, Oregon**

| COPC                   | Exposure Point Concentration | RME Cancer Risk | Risk-Based Concentration |
|------------------------|------------------------------|-----------------|--------------------------|
| Benzo(a)anthracene     | 1.2E-01                      | 4.1E-08         | 2.9                      |
| Benzo(a)pyrene         | 1.4E-01                      | 4.9E-07         | 0.29                     |
| Benzo(b)fluoranthene   | 6.5E-02                      | 2.2E-08         | 2.9                      |
| Dibenz(a,h)anthracene  | 1.7E-02                      | 5.8E-08         | 0.29                     |
| Indeno(1,2,3-cd)pyrene | 8.1E-02                      | 2.8E-08         | 2.9                      |

**Table F-7 - Parcel 2 Commercial Worker Residual Risk Calculations (Surface Soil)**

Sheet 1 of 5

**Soil Ingestion**

**Marine Terminal 1 South Parcel 2 Residual Risk Assessment**

**Terminal 1 South Removal Action Report**

**Portland, Oregon**

| Compounds of Potential Concern | Soil EPC in mg/kg |         | Hazard Intake in mg/kg-day |         | Hazard Quotient |               | Cancer Intake In mg/kg-day |         | Cancer Risk   |               |
|--------------------------------|-------------------|---------|----------------------------|---------|-----------------|---------------|----------------------------|---------|---------------|---------------|
|                                | RME               | CT      | RME                        | CT      | RME             | CT            | RME                        | CT      | RME           | CT            |
| <b>PAHs</b>                    |                   |         |                            |         |                 |               |                            |         |               |               |
| Benzo(a)anthracene             | 1.2E-01           | 4.8E-02 | 1.2E-07                    | 2.3E-08 | --              | --            | 4.2E-08                    | 2.0E-09 | 3.0E-08       | 1.5E-09       |
| Benzo(a)pyrene                 | 1.4E-01           | 5.4E-02 | 1.4E-07                    | 2.6E-08 | --              | --            | 5.0E-08                    | 2.3E-09 | 3.7E-07       | 1.7E-08       |
| Benzo(b)fluoranthene           | 6.5E-02           | 3.4E-02 | 6.4E-08                    | 1.7E-08 | --              | --            | 2.3E-08                    | 1.4E-09 | 1.7E-08       | 1.0E-09       |
| Dibenz(a,h)anthracene          | 1.7E-02           | 1.2E-02 | 1.7E-08                    | 5.9E-09 | --              | --            | 5.9E-09                    | 5.0E-10 | 4.3E-08       | 3.7E-09       |
| Indeno(1,2,3-cd)pyrene         | 8.1E-02           | 4.3E-02 | 7.9E-08                    | 2.1E-08 | --              | --            | 2.8E-08                    | 1.8E-09 | 2.1E-08       | 1.3E-09       |
| <b>TOTAL HAZARD INDEX</b>      |                   |         |                            |         | <b>0.E+00</b>   | <b>0.E+00</b> | <b>TOTAL CANCER RISK</b>   |         | <b>5.E-07</b> | <b>2.E-08</b> |

**Notes:**

RME = Reasonable Maximum Exposure.

CT = Central Tendency.

EPC = Exposure Point Concentration.

**Table F-7 - Parcel 2 Commercial Worker Residual Risk Calculations (Surface Soil)**

Sheet 2 of 5

**Dermal Contact with Soil**

**Marine Terminal 1 South Parcel 2 Residual Risk Assessment**

**Terminal 1 South Removal Action Report**

**Portland, Oregon**

| Compounds of Potential Concern | ABS  | Soil EPC in mg/kg |         | Hazard Intake in mg/kg-day |         | Hazard Quotient |               | Cancer Intake in mg/kg-day |         | Cancer Risk   |               |
|--------------------------------|------|-------------------|---------|----------------------------|---------|-----------------|---------------|----------------------------|---------|---------------|---------------|
|                                |      | RME               | CT      | RME                        | CT      | RME             | CT            | RME                        | CT      | RME           | CT            |
| <b>PAHs</b>                    |      |                   |         |                            |         |                 |               |                            |         |               |               |
| Benzo(a)anthracene             | 0.13 | 1.2E-01           | 4.8E-02 | 5.0E-08                    | 1.6E-08 | --              | --            | 1.8E-08                    | 1.3E-09 | 1.3E-08       | 9.8E-10       |
| Benzo(a)pyrene                 | 0.13 | 1.4E-01           | 5.4E-02 | 6.0E-08                    | 1.8E-08 | --              | --            | 2.1E-08                    | 1.5E-09 | 1.6E-07       | 1.1E-08       |
| Benzo(b)fluoranthene           | 0.13 | 6.5E-02           | 3.4E-02 | 2.7E-08                    | 1.1E-08 | --              | --            | 9.7E-09                    | 9.5E-10 | 7.1E-09       | 6.9E-10       |
| Dibenz(a,h)anthracene          | 0.13 | 1.7E-02           | 1.2E-02 | 7.1E-09                    | 3.9E-09 | --              | --            | 2.5E-09                    | 3.3E-10 | 1.8E-08       | 2.4E-09       |
| Indeno(1,2,3-cd)pyrene         | 0.13 | 8.1E-02           | 4.3E-02 | 3.4E-08                    | 1.4E-08 | --              | --            | 1.2E-08                    | 1.2E-09 | 8.8E-09       | 8.8E-10       |
| <b>TOTAL HAZARD INDEX</b>      |      |                   |         |                            |         | <b>0.E+00</b>   | <b>0.E+00</b> | <b>TOTAL CANCER RISK</b>   |         | <b>2.E-07</b> | <b>2.E-08</b> |

**Notes:**

ABS = Dermal Absorption Factor (EPA, 1998).

RME = Reasonable Maximum Exposure.

CT = Central Tendency.

EPC = Exposure Point Concentration.



**Table F-7 - Parcel 2 Commercial Worker Residual Risk Calculations (Surface Soil)**  
**Vapor Inhalation (Indoor Air)**  
**Marine Terminal 1 South Parcel 2 Residual Risk Assessment**  
**Terminal 1 South Removal Action Report**  
**Portland, Oregon**

Sheet 3 of 5

| Compounds of Potential Concern    | Indoor Air EPC in mg/m <sup>3</sup> |         | Hazard Intake in mg/kg-day |         | Hazard Quotient |               | Cancer Intake in mg/kg-day |         | Cancer Risk   |               |
|-----------------------------------|-------------------------------------|---------|----------------------------|---------|-----------------|---------------|----------------------------|---------|---------------|---------------|
|                                   | RME                                 | CT      | RME                        | CT      | RME             | CT            | RME                        | CT      | RME           | CT            |
| <b>Volatile Organic Compounds</b> |                                     |         |                            |         |                 |               |                            |         |               |               |
| Chloroform                        | 9.2E-07                             | 3.2E-07 | 1.4E-07                    | 4.6E-08 | 1.6E-03         | 5.5E-04       | 4.9E-08                    | 4.1E-09 | 4.0E-09       | 3.3E-10       |
| <b>TOTAL HAZARD INDEX</b>         |                                     |         |                            |         | <b>2.E-03</b>   | <b>6.E-04</b> | <b>TOTAL CANCER RISK</b>   |         | <b>4.E-09</b> | <b>3.E-10</b> |

**Notes:**

Indoor Air EPC modeled from maximum detected groundwater concentration using DEQ's RBDM Guidance (DEQ, 2001b).

Outdoor Air not evaluated since indoor air risks and hazards were acceptable.

RME = Reasonable Maximum Exposure.

CT = Central Tendency.

EPC = Exposure Point Concentration.

**Table F-7 - Parcel 2 Commercial Worker Residual Risk Calculations (Surface Soil)**  
**Fugitive Dust Inhalation (Outdoor Air)**  
**Marine Terminal 1 South Parcel 2 Residual Risk Assessment**  
**Terminal 1 South Removal Action Report**  
**Portland, Oregon**

Sheet 4 of 5

| Compounds of Potential Concern | PEF in m <sup>3</sup> /kg | Outdoor Air EPC in mg/m <sup>3</sup> |         | Hazard Intake in mg/kg-day |         | Hazard Quotient |               | Cancer Intake in mg/kg-day |         | Cancer Risk   |               |
|--------------------------------|---------------------------|--------------------------------------|---------|----------------------------|---------|-----------------|---------------|----------------------------|---------|---------------|---------------|
|                                |                           | RME                                  | CT      | RME                        | CT      | RME             | CT            | RME                        | CT      | RME           | CT            |
| <b>PAHs</b>                    |                           |                                      |         |                            |         |                 |               |                            |         |               |               |
| Benzo(a)anthracene             | 1.32E+09                  | 9.0E-11                              | 3.6E-11 | 1.3E-11                    | 5.4E-12 | --              | --            | 4.8E-12                    | 4.6E-13 | 1.5E-12       | 1.4E-13       |
| Benzo(a)pyrene                 | 1.32E+09                  | 1.1E-10                              | 4.1E-11 | 1.6E-11                    | 6.1E-12 | --              | --            | 5.8E-12                    | 5.2E-13 | 1.8E-11       | 1.6E-12       |
| Benzo(b)fluoranthene           | 1.32E+09                  | 4.9E-11                              | 2.6E-11 | 7.3E-12                    | 3.8E-12 | --              | --            | 2.6E-12                    | 3.3E-13 | 8.1E-13       | 1.0E-13       |
| Dibenz(a,h)anthracene          | 1.32E+09                  | 1.3E-11                              | 9.1E-12 | 1.9E-12                    | 1.4E-12 | --              | --            | 6.8E-13                    | 1.2E-13 | 2.1E-12       | 3.6E-13       |
| Indeno(1,2,3-cd)pyrene         | 1.32E+09                  | 6.1E-11                              | 3.3E-11 | 9.1E-12                    | 4.8E-12 | --              | --            | 3.3E-12                    | 4.2E-13 | 1.0E-12       | 1.3E-13       |
| <b>TOTAL HAZARD INDEX</b>      |                           |                                      |         |                            |         | <b>0.E+00</b>   | <b>0.E+00</b> | <b>TOTAL CANCER RISK</b>   |         | <b>2.E-11</b> | <b>2.E-12</b> |

**Notes:**

Outdoor Air EPC = Soil EPC (See Table 4)/PEF.

PEF = Particulate Emission Factor.

RME = Reasonable Maximum Exposure.

CT = Central Tendency.

EPC = Exposure Point Concentration.

**Table F-7 - Parcel 2 Commercial Worker Residual Risk Calculations (Surface Soil)**  
**RME and CT Risk Summary: By COPC**  
**Marine Terminal 1 South Parcel 2 Residual Risk Assessment**  
**Terminal 1 South Removal Action Report**  
**Portland, Oregon**

| Exposure Scenario              | COPC                   | Exposure Point Concentration | RME Cancer Risk |               |                         |                    |               | Exposure Point Concentration | CT Cancer Risk |               |                         |                    |               |
|--------------------------------|------------------------|------------------------------|-----------------|---------------|-------------------------|--------------------|---------------|------------------------------|----------------|---------------|-------------------------|--------------------|---------------|
|                                |                        |                              | Ingestion       | Dermal        | Inhalation of Volatiles | Inhalation of Dust | TOTAL         |                              | Ingestion      | Dermal        | Inhalation of Volatiles | Inhalation of Dust | TOTAL         |
| Commercial Worker (Scenario 3) | Benzo(a)anthracene     | 1.2E-01                      | 3.E-08          | 1.E-08        | na                      | 1.E-12             | 4.E-08        | 4.8E-02                      | 1.E-09         | 1.E-09        | na                      | 1.E-13             | 2.E-09        |
|                                | Benzo(a)pyrene         | 1.4E-01                      | 4.E-07          | 2.E-07        | na                      | 2.E-11             | 5.E-07        | 5.4E-02                      | 2.E-08         | 1.E-08        | na                      | 2.E-12             | 3.E-08        |
|                                | Benzo(b)fluoranthene   | 6.5E-02                      | 2.E-08          | 7.E-09        | na                      | 8.E-13             | 2.E-08        | 3.4E-02                      | 1.E-09         | 7.E-10        | na                      | 1.E-13             | 2.E-09        |
|                                | Dibenz(a,h)anthracene  | 1.7E-02                      | 4.E-08          | 2.E-08        | na                      | 2.E-12             | 6.E-08        | 1.2E-02                      | 4.E-09         | 2.E-09        | na                      | 4.E-13             | 6.E-09        |
|                                | Indeno(1,2,3-cd)pyrene | 8.1E-02                      | 2.E-08          | 9.E-09        | na                      | 1.E-12             | 3.E-08        | 4.3E-02                      | 1.E-09         | 9.E-10        | na                      | 1.E-13             | 2.E-09        |
|                                | Chloroform             | na                           | na              | na            | 4.E-09                  | na                 | 4.E-09        | na                           | na             | na            | 3.E-10                  | na                 | 3.E-10        |
|                                | <b>TOTAL</b>           |                              | <b>5.E-07</b>   | <b>2.E-07</b> | <b>4.E-09</b>           | <b>2.E-11</b>      | <b>7.E-07</b> |                              | <b>2.E-08</b>  | <b>2.E-08</b> | <b>3.E-10</b>           | <b>2.E-12</b>      | <b>4.E-08</b> |

P:\DATA\Jobs\Port of Portland\15191-01 T-1 Risk Assessment\Appendices\Appendix B Tables\B-2

**Notes:**

RME = Reasonable Maximum Exposure.

CT = Central Tendency.

COPC = Compound of Potential Concern.

na = Not applicable.

**Table F-7 - Parcel 2 Commercial Worker Residual Risk RBCs  
RME and CT Risk Summary: By COPC  
Marine Terminal 1 South Parcel 2 Residual Risk Assessment  
Terminal 1 South Removal Action Report  
Portland, Oregon**

| COPC                   | Exposure Point<br>Concentration | RME<br>Cancer<br>Risk | Risk-Based<br>Concentration |
|------------------------|---------------------------------|-----------------------|-----------------------------|
| Benzo(a)anthracene     | 1.2E-01                         | 4.3E-08               | 2.7                         |
| Benzo(a)pyrene         | 1.4E-01                         | 5.2E-07               | 0.27                        |
| Benzo(b)fluoranthene   | 6.5E-02                         | 2.4E-08               | 2.7                         |
| Dibenz(a,h)anthracene  | 1.7E-02                         | 6.2E-08               | 0.27                        |
| Indeno(1,2,3-cd)pyrene | 8.1E-02                         | 2.9E-08               | 2.7                         |

**Table F-8 • Risk and Hazard Summary: By Exposure Pathway**  
**Marine Terminal 1 South Parcel 2 Residual Risk Assessment**  
**Terminal 1 South Removal Action Report**  
**Portland, Oregon**

| Exposure Scenario | COPC                   | Exposure Point Concentration in mg/kg | RME Cancer Risk |               |                         |                    |               | Exposure Point Concentration in mg/kg | CT Cancer Risk |               |                         |                    |               |
|-------------------|------------------------|---------------------------------------|-----------------|---------------|-------------------------|--------------------|---------------|---------------------------------------|----------------|---------------|-------------------------|--------------------|---------------|
|                   |                        |                                       | Ingestion       | Dermal        | Inhalation of Volatiles | Inhalation of Dust | TOTAL         |                                       | Ingestion      | Dermal        | Inhalation of Volatiles | Inhalation of Dust | TOTAL         |
| Urban Resident    | Benzo(a)anthracene     | 1.2E-01                               | 3.E-08          | 1.E-08        | na                      | 2.E-12             | 4.E-08        | 4.8E-02                               | 2.E-09         | 2.E-10        | na                      | 6.E-13             | 2.E-09        |
|                   | Benzo(a)pyrene         | 1.4E-01                               | 4.E-07          | 1.E-07        | na                      | 3.E-11             | 5.E-07        | 5.4E-02                               | 2.E-08         | 3.E-09        | na                      | 6.E-12             | 2.E-08        |
|                   | Benzo(b)fluoranthene   | 6.5E-02                               | 2.E-08          | 6.E-09        | na                      | 1.E-12             | 2.E-08        | 3.4E-02                               | 1.E-09         | 2.E-10        | na                      | 4.E-13             | 1.E-09        |
|                   | Dibenz(a,h)anthracene  | 1.7E-02                               | 4.E-08          | 2.E-08        | na                      | 4.E-12             | 6.E-08        | 1.2E-02                               | 4.E-09         | 6.E-10        | na                      | 1.E-12             | 5.E-09        |
|                   | Indeno(1,2,3-cd)pyrene | 8.1E-02                               | 2.E-08          | 8.E-09        | na                      | 2.E-12             | 3.E-08        | 4.3E-02                               | 1.E-09         | 2.E-10        | na                      | 5.E-13             | 2.E-09        |
|                   | Chloroform             | na                                    | na              | na            | 2.E-08                  | na                 | 2.E-08        | na                                    | na             | na            | 4.E-09                  | na                 | 4.E-09        |
|                   | <b>TOTAL</b>           |                                       | <b>5.E-07</b>   | <b>2.E-07</b> | <b>2.E-08</b>           | <b>4.E-11</b>      | <b>7.E-07</b> |                                       | <b>3.E-08</b>  | <b>4.E-09</b> | <b>4.E-09</b>           | <b>8.E-12</b>      | <b>3.E-08</b> |
| Commercial Worker | Benzo(a)anthracene     | 1.2E-01                               | 3.E-08          | 1.E-08        | na                      | 1.E-12             | 4.E-08        | 4.8E-02                               | 1.E-09         | 1.E-09        | na                      | 1.E-13             | 2.E-09        |
|                   | Benzo(a)pyrene         | 1.4E-01                               | 4.E-07          | 2.E-07        | na                      | 2.E-11             | 5.E-07        | 5.4E-02                               | 2.E-08         | 1.E-08        | na                      | 2.E-12             | 3.E-08        |
|                   | Benzo(b)fluoranthene   | 6.5E-02                               | 2.E-08          | 7.E-09        | na                      | 8.E-13             | 2.E-08        | 3.4E-02                               | 1.E-09         | 7.E-10        | na                      | 1.E-13             | 2.E-09        |
|                   | Dibenz(a,h)anthracene  | 1.7E-02                               | 4.E-08          | 2.E-08        | na                      | 2.E-12             | 6.E-08        | 1.2E-02                               | 4.E-09         | 2.E-09        | na                      | 4.E-13             | 6.E-09        |
|                   | Indeno(1,2,3-cd)pyrene | 8.1E-02                               | 2.E-08          | 9.E-09        | na                      | 1.E-12             | 3.E-08        | 4.3E-02                               | 1.E-09         | 9.E-10        | na                      | 1.E-13             | 2.E-09        |
|                   | Chloroform             | na                                    | na              | na            | 4.E-09                  | na                 | 4.E-09        | na                                    | na             | na            | 3.E-10                  | na                 | 3.E-10        |
|                   | <b>TOTAL</b>           |                                       | <b>5.E-07</b>   | <b>2.E-07</b> | <b>4.E-09</b>           | <b>2.E-11</b>      | <b>7.E-07</b> |                                       | <b>2.E-08</b>  | <b>2.E-08</b> | <b>3.E-10</b>           | <b>2.E-12</b>      | <b>4.E-08</b> |

QA1A/Use/Port of Portland/15230 Term 1 Support/Parcel 2/Construction Report/Appendix F-F-1a Risk, Table 8

**Notes:**

na = Not Applicable.

CT = Central Tendency.

RME = Reasonable maximum exposure.

Table F-6 - Parcel 2 Soil Data Used for Residual Risk Assessment (0-3 feet bgs)  
Marine Terminal 1 South Parcel 2 Residual Risk Assessment  
Terminal 1 South Removal Action Report  
Portland, Oregon

| Area                   | B               | B               | B               | B1        | B1        | B1        | B1        | B2         | B2          | B4       | B5       | B5       | B5        | B5        | B3          | B3           | B1        | B1        |              |           |
|------------------------|-----------------|-----------------|-----------------|-----------|-----------|-----------|-----------|------------|-------------|----------|----------|----------|-----------|-----------|-------------|--------------|-----------|-----------|--------------|-----------|
| Sample ID              | 4876-000226-002 | 4876-000226-003 | 4876-000302-027 | TP2       | 1 E2      | 1B Smith  | 1 N2      | T1-2W(0-3) | T1-2FW(0-3) | 4E       | 5W       | 5B       | 6B        | 6B        | T1-3E2(0-3) | T1-3SE3(0-3) | 1W5       | 1W4       | T1-3SE4(0-3) | 1W3       |
| Station                | B-14            | B-15            | B-31            |           |           |           |           |            |             |          |          |          |           |           |             |              |           |           |              |           |
| Sampling Date          | 2/23/2000       | 2/29/2000       | 3/6/2000        | 8/22/2002 | 8/22/2002 | 8/12/2002 | 8/22/2002 | 8/19/2002  | 8/16/2002   | 8/9/2002 | 8/9/2002 | 8/9/2002 | 8/22/2002 | 8/22/2002 | 9/20/2002   | 9/20/2002    | 9/23/2002 | 9/20/2002 | 9/20/2002    | 9/20/2002 |
| Depth in Feet          | 1               | 2               | 1               | 0-3       | 0-3       | 3         | 0-3       | 0-3        | 0-3         | 0-1      | 0-3      | 0-3      | 0-3       | 0-3       | 0-3         | 0-3          | 0-3       | 0-3       | 0-3          | 0-3       |
| <b>Metals in mg/kg</b> |                 |                 |                 |           |           |           |           |            |             |          |          |          |           |           |             |              |           |           |              |           |
| Arsimony               | 2.5 U           | 2.5 U           | 2.5 U           |           |           |           |           |            |             |          |          |          |           |           |             |              |           |           |              |           |
| Arsenic                | 2.9             | 2.9             | 3.1             |           |           |           |           |            |             |          |          |          |           |           |             |              |           |           |              |           |
| Beryllium              | 0.23            | 0.23            | 0.21            |           |           |           |           |            |             |          |          |          |           |           |             |              |           |           |              |           |
| Cadmium                | 0.2 U           | 0.2 U           | 0.2 U           |           |           |           |           |            |             |          |          |          |           |           |             |              |           |           |              |           |
| Chromium               | 13.7            | 15              | 14.2            |           |           |           |           |            |             |          |          |          |           |           |             |              |           |           |              |           |
| Copper                 | 14.4            | 14.3            | 15.1            |           |           |           |           |            |             |          |          |          |           |           |             |              |           |           |              |           |
| Lead                   | 2.8             | 9.9             | 2.9             |           |           |           |           |            |             |          |          |          |           |           |             |              |           |           |              |           |
| Mercury                | 0.1 U           | 0.1 U           | 0.1 U           |           |           |           |           |            |             |          |          |          |           |           |             |              |           |           |              |           |
| Nickel                 | 17.3            | 16.1            | 15.3            |           |           |           |           |            |             |          |          |          |           |           |             |              |           |           |              |           |
| Selenium               | 1 U             | 1 U             | 1 U             |           |           |           |           |            |             |          |          |          |           |           |             |              |           |           |              |           |
| Silver                 | 0.3 U           | 0.3 U           | 0.3 U           |           |           |           |           |            |             |          |          |          |           |           |             |              |           |           |              |           |
| Thallium               | 0.5 U           | 0.5 U           | 0.5 U           |           |           |           |           |            |             |          |          |          |           |           |             |              |           |           |              |           |
| Zinc                   | 43.7            | 46.1            | 39.3            |           |           |           |           |            |             |          |          |          |           |           |             |              |           |           |              |           |
| <b>TCU/Lead</b>        |                 |                 |                 |           |           |           |           |            |             |          |          |          |           |           |             |              |           |           |              |           |
| <b>PAHs in mg/kg</b>   |                 |                 |                 |           |           |           |           |            |             |          |          |          |           |           |             |              |           |           |              |           |
| Benzo(a)anthracene     | <0.01           | <0.01           | 0.08            | <0.01     | 0.0162    | <0.0134   | <0.0134   | <0.0134    | <0.0134     | <0.0134  | <0.0134  | <0.0134  | 0.0243    | 0.0324    | 0.1870      | 0.0338       | 0.0177    | 0.2280    | 0.0901       | 0.0901    |
| Benzo(a)pyrene         | <0.01           | <0.01           | 0.0743          | <0.01     | 0.0198    | <0.0134   | <0.0134   | <0.0134    | <0.0134     | <0.0134  | <0.0134  | <0.0134  | 0.025     | 0.0427    | 0.1490      | 0.0370       | 0.0213    | 0.3110    | 0.1020       | 0.1020    |
| Benzo(b)fluoranthene   | <0.01           | <0.01           | <0.067          | <0.01     | <0.0134   | <0.0134   | <0.0134   | <0.0134    | <0.0134     | <0.0134  | <0.0134  | <0.0134  | 0.0181    | 0.0285    | 0.0948      | 0.0220       | 0.0135    | 0.1810    | 0.0896       | 0.0896    |
| Benzo(k)fluoranthene   | <0.01           | <0.01           | <0.067          | <0.01     | 0.0143    | <0.0134   | <0.0134   | <0.0134    | <0.0134     | <0.0134  | <0.0134  | <0.0134  | 0.0188    | 0.0301    | 0.1210      | 0.0213       | 0.0183    | 0.1000    | 0.0803       | 0.0803    |
| Chrysene               | <0.01           | <0.01           | 0.101           | <0.01     | 0.02      | <0.0134   | <0.0134   | <0.0134    | <0.0134     | <0.0134  | <0.0134  | <0.0134  | 0.025     | 0.0318    | 0.1500      | 0.0331       | 0.0142    | 0.2310    | 0.0770       | 0.0770    |
| Dibenz(a,h)anthracene  | <0.01           | <0.01           | <0.067          | <0.01     | <0.0134   | <0.0134   | <0.0134   | <0.0134    | <0.0134     | <0.0134  | <0.0134  | <0.0134  | <0.01     | 0.0127    | 0.0777      | <0.01        | <0.01     | <0.05     | 0.0262       | 0.0262    |
| Indeno(1,2,3-cd)pyrene | <0.01           | <0.01           | <0.067          | <0.01     | <0.0134   | <0.0134   | <0.0134   | <0.0134    | <0.0134     | <0.0134  | <0.0134  | <0.0134  | 0.0140    | 0.0277    | 0.0332      | 0.0228       | 0.0135    | 0.3540    | 0.0581       | 0.0581    |
| Acenaphthene           | <0.01           | <0.01           | <0.067          | <0.01     | <0.0134   | <0.0134   | <0.0134   | <0.0134    | <0.0134     | <0.0134  | <0.0134  | <0.0134  | <0.01     | 0.0228    | <0.01       | <0.01        | <0.01     | <0.01     | <0.01        | <0.01     |
| Acenaphthylene         | <0.01           | <0.01           | <0.067          | <0.01     | <0.0134   | <0.0134   | <0.0134   | <0.0134    | <0.0134     | <0.0134  | <0.0134  | <0.0134  | <0.01     | 0.0202    | <0.01       | <0.01        | <0.01     | 0.0505    | <0.01        | <0.01     |
| Anthracene             | <0.01           | <0.01           | <0.067          | <0.01     | <0.0134   | <0.0134   | <0.0134   | <0.0134    | <0.0134     | <0.0134  | <0.0134  | <0.0134  | <0.01     | 0.1080    | <0.01       | <0.01        | <0.01     | 0.0924    | 0.0205       | 0.0205    |
| Benzo(g,h,i)perylene   | <0.01           | <0.01           | <0.067          | <0.01     | 0.0147    | <0.0134   | <0.0134   | <0.0134    | <0.0134     | <0.0134  | <0.0134  | <0.0134  | 0.0194    | 0.0372    | 0.0975      | 0.0268       | 0.0149    | 0.7340    | 0.0563       | 0.0563    |
| Fluoranthene           | <0.01           | <0.01           | 0.121           | <0.01     | 0.0227    | <0.0134   | <0.0134   | <0.0134    | <0.0134     | <0.0134  | <0.0134  | <0.0134  | 0.0382    | 0.0435    | 0.2090      | 0.0340       | 0.0206    | 0.3540    | 0.0950       | 0.0950    |
| Fluorene               | <0.01           | <0.01           | <0.067          | <0.01     | <0.0134   | <0.0134   | <0.0134   | <0.0134    | <0.0134     | <0.0134  | <0.0134  | <0.0134  | <0.01     | <0.01     | 0.0135      | <0.01        | <0.01     | <0.01     | <0.01        | <0.01     |
| Naphthalene            | <0.01           | <0.01           | <0.067          | <0.01     | <0.0134   | <0.0134   | <0.0134   | <0.0134    | <0.0134     | <0.0134  | <0.0134  | <0.0134  | <0.01     | <0.01     | 0.0157      | <0.01        | <0.01     | <0.01     | <0.01        | <0.01     |
| Phenanthrene           | <0.01           | <0.01           | 0.0710          | <0.01     | <0.0134   | <0.0134   | <0.0134   | <0.0134    | <0.0134     | <0.0134  | <0.0134  | <0.0134  | 0.0119    | 0.0281    | 0.0990      | 0.0319       | <0.01     | 0.2490    | 0.0487       | 0.0487    |
| Pyrene                 | <0.01           | <0.01           | 0.186           | <0.01     | 0.0102    | 0.0358    | 0.0178    | <0.0134    | <0.0134     | <0.0134  | <0.0134  | <0.0134  | 0.0488    | 0.0591    | 0.3560      | 0.0543       | 0.0234    | 0.5350    | 0.1150       | 0.1150    |
| Total PAHs             | <0.01           | <0.01           | 0.6308          | <0.01     | 0.1433    | 0.0178    | <0.0134   | <0.0134    | <0.0134     | <0.0134  | <0.0134  | <0.0134  | 0.248     | 0.3888    | 2.0645      | 0.3359       | 0.1553    | 3.5210    | 0.8468       | 0.8468    |

Note:  
U = Not detected at the indicated method reporting limits (MRL).

CAUTION: This report contains information that is not to be released to the public without the approval of the responsible agency.